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EXTENDED SCHOOL YEAR DESIGNS--AN INTRODUCTION TO NEW PLANS OF SCHOOL ORGANIZATION WHICH CAN RESULT IN FINANCIAL ECONOMIES AND PROVIDE MORE EDUCATION FOR ALL PUPILS.

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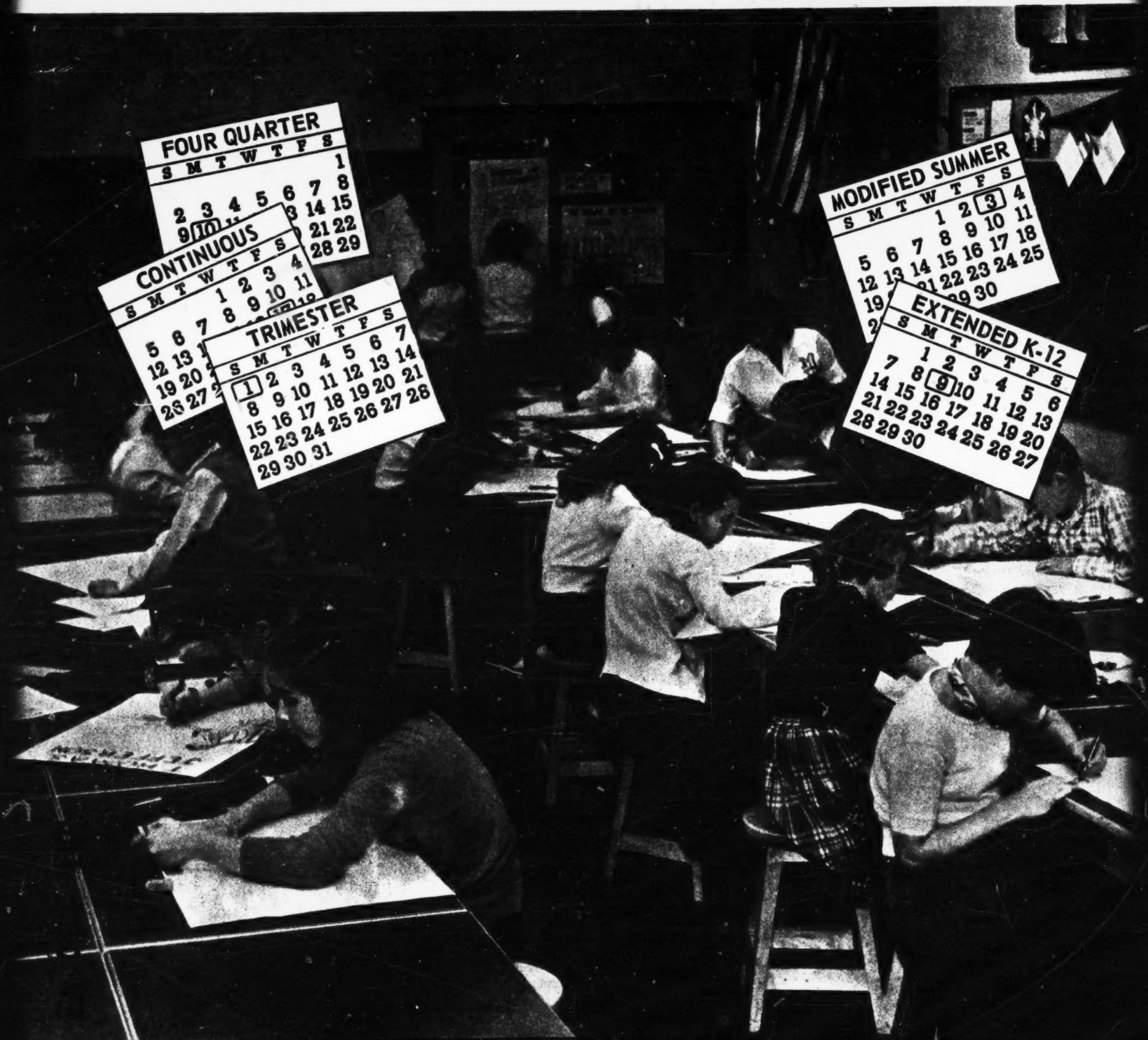
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THIS REPORT EXPLORES PLANS OF ELEMENTARY AND SECONDARY SCHOOL ORGANIZATION BASED UPON THE LENGTHENING OF THE SCHOOL YEAR TO REDUCE BY ONE OR MORE YEARS THE TOTAL PERIOD OF SCHOOLING. PRACTICAL INFORMATION IS PRESENTED CONCERNING (1) THE CONTINUOUS SCHOOL YEAR PLAN, (2) THE TRIMESTER PLAN, (3) THE QUADRIMESTER PLAN, (4) THE MODIFIED SUMMER SCHOOL PLAN, AND (5) THE EXTENDED K TO 12 PLAN. THE EFFECTS OF EACH PLAN UPON STUDENTS, TEACHERS, SCHOOL FACILITIES, SCHOOL FINANCE, AND CURRICULUM ARE DISCUSSED. LONG-RUN FINANCIAL BENEFITS ARE EXPECTED TO ACCRUE FROM SAVINGS IN SALARIES, TRANSPORTATION COSTS, CAPITAL OUTLAY, DEBT SERVICE, AND BUILDING OPERATION COSTS WHILE REVENUES SHOULD INCREASE FROM RELATIVELY LARGER TAX ROLLS. POTENTIAL EDUCATIONAL ADVANTAGES ARISE FROM (1) REDUCTION IN THE NUMBER OF DROPOUTS, (2) SMALLER CLASS SIZE, (3) MORE INSTRUCTIONAL TIME TO MEET THE BASIC NEEDS OF EACH CHILD WITHOUT ADDITIONAL COST, (4) MORE EFFECTIVE UTILIZATION OF SPECIAL FACILITIES, (5) REDUCTION OF THE GAP BETWEEN TEACHER DEMAND AND TEACHER SUPPLY, AND (6) INCREASED TEACHER QUALITY RESULTING FROM THE ABILITY TO PAY HIGHER SALARIES AND THUS TO COMPETE EFFECTIVELY FOR QUALIFIED INDIVIDUALS. REQUIRED CURRICULUM ADJUSTMENTS TO MAKE SUCH PLANS EFFECTIVE ARE DISCUSSED IN DETAIL. EA 001 378 IS A RELATED DOCUMENT. (TT)

EXTENDED School Year Designs

AN INTRODUCTION TO PLANS FOR RESCHEDULING THE SCHOOL YEAR



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EXTENDED SCHOOL YEAR DESIGNS

**An Introduction to New Plans of School Organization
Which Can Result in Financial Economies and
Provide More Education for All Pupils**

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**U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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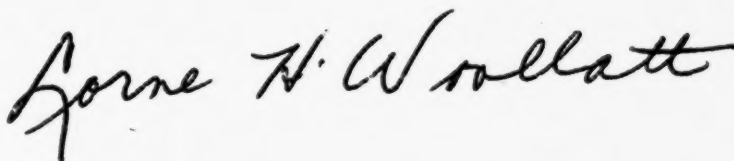
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PREFACE

In 1963, the New York State Legislature asked the State Education Department to ". . . design demonstration programs and conduct experimentation to discover the educational, social and other impacts of rescheduling the school year from the present thirteen year system to a twelve or eleven year system while still providing as many instructional hours or more than are now available under the present thirteen year system."

In August 1965, the Office of Research and Evaluation published and distributed widely "Economy and Increased Educational Opportunity Through Extended School Year Programs" describing model programs and discussing key questions concerning the longer school year. The present document, "Extended School Year Designs" is intended as a more technical manual designed for those who wish seriously to explore the idea with a view to experimentation or installation. School administrators should be able to use it as a sort of how-to-do-it manual. Professors of education should find it useful in their own projects and with graduate classes, particularly of those studying school administration. School board members may find it helpful in arriving at basic understandings about the force and effect of an extended school year.

"Extended School Year Designs" is a thought-provoking document. Essentially, one must not only read it but think it. It is a tribute to the dedicated, ingenious, and painstaking work of George I. Thomas who has devoted two years of his life to this particular project; a project which has required the ability to meet with lay and professional people on their home grounds individually and in groups, to design new ideas with a view to practicality, to understanding such diverse fields as curriculum, administration, the use of electronic computers, the exacting skill of mathematics, and communicating complex ideas in verbal and graphic form.



Lorne H. Woollatt
Associate Commissioner for Research
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EXTENDED SCHOOL YEAR DESIGNS

Part I

Getting Acquainted With the Extended School Year Concept

During its early days the United States was an agrarian nation. At that time, boys went to school in the winter and left with their male teachers to work on farms in the summer. Girls and women teachers replaced them in the schools in the summer. Thus, the schools were on a year-round basis for a period of time.

With the upsurge in public education, the big issue was the amount of money available for education. This was illustrated by a school board member from a midwestern community who said, "If we are lucky, we can keep the schools open through February or even March. The teacher knows that her work is finished when we run out of money." The amount of available money still dictates the length of school terms in some parts of the nation.

How Long Should the School Year Be?

The movement for a longer school year in New York State is not new. History reveals a lengthening of the school year in rural areas and towns, while city schools have shortened their school year to adjust to legal requirements and monetary pressures. The following illustrates a pattern:

1. In 1837, the average length of the school year ranged from 4 to 12 months. E.g., all of King's County except for New Utrecht had a 12-month school year.
2. In 1867, the average time schools were in session in rural districts was 166 days; in cities, it was 211 days.
3. In 1898, the average school term for the State was 177 days, but in towns it was 171 days compared to 194 days in the cities.
4. In 1913, the legal school year was lengthened from 160 days to 180 days in an attempt to pressure rural areas to increase the amount of schooling offered farm children.
5. Today, the minimum school year for New York State is 180 days, but many pupils receive less than 180 days of instruction since schools can be legally closed for a number of reasons, such as Regents examination week and teacher conference days.
6. National experience indicates that the school year is increasing at the rate of 1 day every year.¹

¹Thus, the extended school year plan proposes to make a gain of a quarter of a century in a year. Such a gain demands the efficient use of every hour; an annual change of one day is more likely to lead to merely taking more time to do the same thing.

What Is Meant by an Extended School Year Program?

For decades consideration of the advantages of a longer school year has led to modifications of traditional school organizational patterns. Most of the innovations were short lived. Recently, the nation has witnessed a spreading interest in four-quarter or trimester college calendars. The success of some of these extended year college programs has created a new interest in the potentialities of extended year programs at the elementary or secondary school levels.

In 1963, the New York State Joint Legislative Committee on School Financing recommended a study of the educational feasibility and the sociological and psychological implications of a rescheduling of the school year to effect a possible saving of one or even two years in the traditional 13 years of elementary and secondary schooling. The organizational patterns which will be described in the following pages are recommended as possible approaches to the rescheduling of the school year. Some of them are not unlike those which have been tried elsewhere, but other extended year plans have features which are completely new, i.e., the "E" terms. (See pp. 11-12)

The Extended School Year Program refers to plans of school organization based upon the lengthening of the school year leading to a reduction of one or more years of schooling. While the following proposals show a year can be saved at either the elementary or secondary levels, the recommendations formulated to date do not contemplate the saving of more than one year out of a 13 year sequence. Where extra time can be saved through the Extended School Year Program, schools are urged to modify their curriculums in order to broaden courses of study and to enrich the entire curriculum. This will be evident in what is described as the Extended K to 12 Program.

The following pages will be devoted to a brief outline of the features of:

- (a) The Continuous School Year Plan
- (b) The Trimester Plan
- (c) The Quadrimester Plan
- (d) The Modified Summer School Plan
- (e) The Extended K to 12 Plan

Key questions are answered on the basis of past experience and current research, but some questions may not be answered until more studies in the field have been completed. Pilot studies have provided help, but it will be some time before the full impact of new extended school year patterns can be truly evaluated. This has been true at the college level and will also be true at the elementary and secondary school levels. On one hand, investigators will have to beware of the "halo" effect and on the other hand, there will be the problem of tradition and a resulting emotionalism. In any case, the true test of all extended year programs will depend upon what school administrators do to make the new program work and the impact upon children will depend upon what teachers do with them in the classroom.

Modern children need more and more education. Teachers have more to teach and children have more to learn. This added education may be provided by the lengthening of the school day or the school year, or both.

Can the School Day Be Lengthened?

Not time alone, but how teachers and children use the time is the major consideration in answering this question. A school day with a capable teacher in a good learning environment, with adequate materials, can easily be lengthened without harming boys and girls. However, in rural areas, where children leave home at 7:00 A.M. to get the school bus and return at 4:30 P.M. or 5:00 P.M., with homework still to be done, something other than a longer school day is needed. The high school day must be measured in terms of subjects as well as hours. Secondary school pupils could benefit from a longer school day that offered, instead of extensive homework assignments, extra time for study in an environment conducive to the development of good work-study patterns, independent research skills, and leadership qualities. The school day can be lengthened successfully if there are adequate vacations during the year and if there are ample opportunities to provide work which will offer purposeful and meaningful experiences to the students.

Can Children Take a Longer School Year?

The answer is "Yes." This is evident in the hundreds of thousands of children who voluntarily attend elementary and secondary schools each summer making their total school year longer than the extended year programs recommended in the following pages. The experience of European schools refutes the argument that teachers and children cannot take a longer school year. A study on the length of school in 51 countries of the world showed an average elementary school year of 210 days and an average secondary school year of 204 days.

A longer school year with short vacations during the year has much in its favor. Studies of extended school year programs in Newark, New Jersey and Nashville, Tennessee showed that the children who participated suffered no ill effect. In fact, medical officials reported that these children were healthier than those who roamed the streets or went to the beaches in the summer months. Apparently, the regularity of school routine, a good physical education program, and a well-balanced meal at noon were contributory factors. This was especially significant for those children whose parents were not at home.

Is the Extended School Year Program Primarily an Economy Measure

The Extended School Year Program will offer some solution to the problem of financing schools but even more significantly, it provides an opportunity for school officials to do more for children than they have ever done. Among the benefits are:

1. It can help to reduce the rate of dropout.
2. It can make available additional classrooms to accommodate the increasing pupil enrollment. This will be especially important when the last crop of war babies sends its children to school by the end of the 1960's.
3. Through the release of classrooms for the equivalent of one grade level in a school system, double sessions can be eliminated, classes can be reduced in size, and obsolete facilities can be abandoned.
4. 4. The availability of special facilities (such as laboratories, shops, and libraries) will be increased.
5. The "E" term concept can provide time for more and better education for all types of children.
6. There will be a reduction in the number of teachers required in a school system with the result that additional fully qualified teachers will be available to work with more students.
7. It can lead to some savings in operating expenses and major savings in capital outlay and debt service costs. Though education will cost less under the Extended School Year Program, it will be of higher quality.

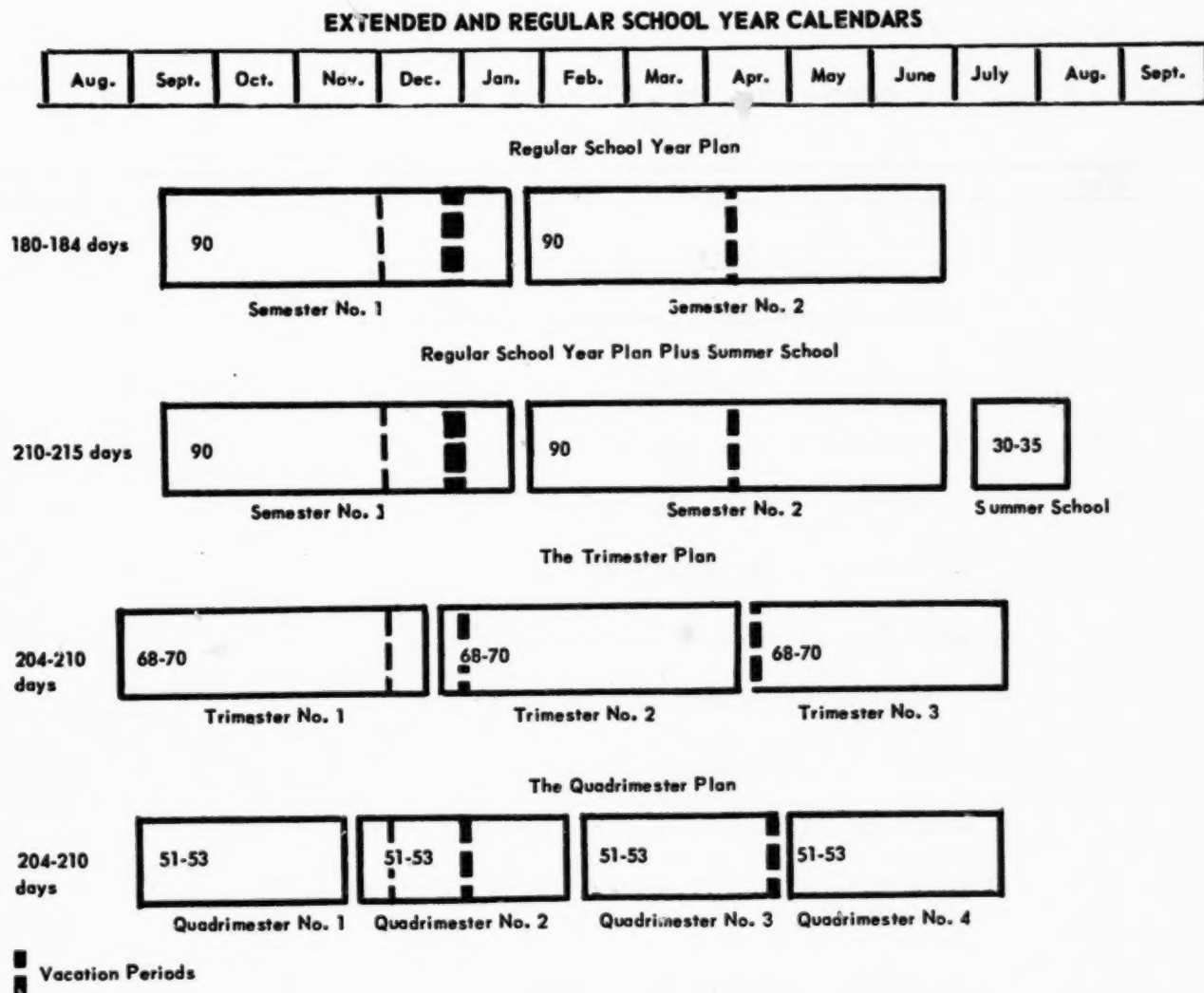
Will the Extended School Year Program
Lead to Year-Round Schooling?

The term "Year-Round Schooling" is used loosely in educational circles. Unfortunately, it is associated with what may be simply described as "The Staggered Quarter System," which provided that the schools be kept open for 12 months while the student body was divided into four sections with each group rotating a 3 month vacation. Pupils were on vacation in the fall, winter, spring, or summer, but they never had the advantage of more than 180 days of schooling.

Some school systems have operated a form of continuous four quarter or continuous schooling for 48 weeks; the Extended School Year Program does not require such a long period of schooling.

The Extended School Year proposals recommended for New York State will have little in common with the traditional concept of year-round schooling. Boys and girls can attend school for 204, 210, 215, or 220 days, but recommended school calendars will be based on the 204 to 210 day school year. This will provide pupils and teachers with a summer vacation ranging from 5 to 7 weeks.

Figure 1



The Nature of the School Calendar

The school calendar should provide for regular holidays, a Christmas and spring vacation, plus a reasonable summer vacation. Figure 1 shows a sample calendar for the 207 day school year. This calendar, providing for a 7 week vacation extending from July 1 to late August, creates fewer problems than others since it makes it possible for pupils to go to camp or for teachers to attend a traditional summer school.

Other school calendars have been developed for longer school years. In every case, provision has been made for vacations ranging from 5 to 7 weeks. By adjusting the opening or closing dates of school, these vacations can be provided in July, in August, or in part of both months.

School administrators, and business and industrial leaders, should work cooperatively on the development of a calendar to insure that the children's vacations coincide with those of the parents.

Figure 2

A Sample Trimester School Calendar for 1966-67*

School Calendar Variation No. 1

Month	Day	Legend	Days of Schooling
<u>Trimester I</u>			
August	22	School Opens for Students	8
September	5	No School - Labor Day	20
October	3	No School - Teachers Conference	20
November	11	No School - Veterans Day	
November	24-25	No School - Thanksgiving Day	19
December	2	Last Day of School in Trimester I	<u>2</u>
Number of School Days in Trimester I			69
<u>Trimester II</u>			
December	5	Start of Trimester II	
December	23	Last Day of School Before Christmas Recess	15
December	24-	No School - Christmas Recess	
January	1		
January	2	School Reopens	22
February	22	No School - Washington's Birthday	19
March	17	Last Day of School in Trimester II	<u>13</u>
Number of School Days in Trimester II			69
March	18-26	Spring Vacation	
<u>Trimester III</u>			
March	27	Start of Trimester III	5
April			20
May	30	No School - Memorial Day	22
June	30	Last Day of School in Trimester III	<u>22</u>
Number of School Days in Trimester III			<u>69</u>
Total Number of Days in School Year 1966-67			207*

*This calendar is one of several that have been developed to show that a longer school year is possible without forgoing winter and spring vacations while still providing a 6-7 week summer vacation. An earlier start or an extension into July will provide minimum 70 day Trimesters.

How Can a School System Expect To Save Money?

School systems can expect to save money with the adoption of an extended school year program through the reduction of the number of teaching positions and the release of classrooms brought about by the decrease in total school enrollments.

(a) A Reduction in the Number of Pupils To Be Educated

The decrease in school enrollments is the result of the creation of new enrollment flow patterns after an adjustment or transition period. Through the redistribution of educational activities along a new time line, one chronological year of schooling is eliminated. The absorption of this year of schooling is the cause of the decrease in enrollment. The reduction is equal to the number of students that would have been in the highest grade in the regular school year program. For example: a school with an enrollment of 1,200 pupils (200 in each grade) under a regular school year program, will have to house only 1,000 pupils when it is no longer necessary to provide facilities for a class involving 200 students. (See figure 3)

Figure 3

A Comparison of the Number of Pupils Enrolled in Regular and Extended School Year Plans

Number of pupils housed and educated in a school organized under a Regular School Year Program	Number of Grades or Levels	Number of pupils housed and educated under an Extended School Year Program - after the adjustment period
 200 Pupils	1	 200 Pupils
 200 Pupils	2	 200 Pupils
 200 Pupils	3	 200 Pupils
 200 Pupils	4	 200 Pupils
 200 Pupils	5	 200 Pupils
 200 Pupils	6	The school's enrollment is reduced by 200 pupils.

1200

1000

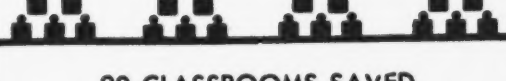
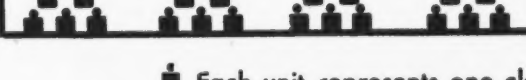
Each symbol represents 20 pupils

(b) A Reduction in the Number of Classrooms

Extended school year programs based on the saving of one year in six result in a smaller total enrollment through the elimination of one grade. This is shown in figure 4, where a hypothetical school system has 20 sections to a grade. The regular six year program requires 120 classrooms, while the extended school year program requires only 100.

Figure 4

A COMPARISON OF THE NUMBER OF CLASSROOMS REQUIRED IN REGULAR AND CONTINUOUS SCHOOL YEAR PLANS

CLASSROOMS REQUIRED FOR THE REGULAR SCHOOL YEAR PLAN 120	GRADE OR LEVEL	CLASSROOMS REQUIRED FOR THE CONTINUOUS SCHOOL YEAR PLAN 100
	1 1	
	2 2	
	3 3	
	4 4	
	5 5	
	6	20 CLASSROOMS SAVED

■ Each unit represents one classroom

Projected enrollments for school systems usually vary for different grades. This will be especially noticeable in rapidly growing communities. It will also be true in the secondary schools where upper grade classes show the effect of dropouts. This factor can influence predicted savings in terms of classrooms or teachers because the number of teachers or classrooms saved is based on the size of the highest grade in the school.

(c) A Reduction in the Number of Teachers

Extended school year programs based on the saving of one year in six result in a reduced school enrollment equal to the class that graduates one year earlier. If the assumption is made that 20 classrooms can be saved through the elimination of one grade, it follows that a minimum of 20 teachers can be saved. This is shown in figure 5.

Financial Aspects of an Extended School Year Program

During the transition years, the financial savings of an extended school year program will not be evident immediately. Until the new flow pattern for a particular design takes over, provision will have to be made to pay what may be considered as adjustment year costs. For the most part, this will involve expenses for additional salaries to teachers, retirement benefits, and possibly extra transportation charges.

Where the reduction in pupil enrollments is brought about by the new flow pattern, the school system is free to decrease the size of its teaching staff. The resulting savings in operating expenses alone will provide more than is needed to make the longer school year self-sustaining.

Figure 5

A COMPARISON OF THE NUMBER OF TEACHERS REQUIRED IN REGULAR AND CONTINUOUS SCHOOL YEAR PLANS

CLASSROOM TEACHERS REQUIRED FOR REGULAR SCHOOL YEAR PLAN 120	GRADE OR LEVEL	CLASSROOM TEACHERS REQUIRED FOR CONTINUOUS SCHOOL YEAR PLAN 100
	1 1	
	2 2	
	3 3	
	4 4	
	5 5	
	6	CLASSROOM TEACHERS SAVED

 Each figure represents one classroom teacher

It is important that careful consideration be given to the financial aspect of each extended school year program, as it affects every phase of a total school budget.

Terminology Used in Discussing Costs and Potential Savings

1. **Costs:** Refers to extra operating expense items resulting from the lengthening of the school year; included would be extra teacher compensation, allowances for teacher retirement benefits, and additional transportation charges.
2. **Savings:** Refers to a potential financial return to a school system due to the saving of one year in the traditional thirteen year program through the adoption of the Extended School Year Plan. The monetary savings fall into at least six categories:

(a) Savings in Instructional Salaries

Refers to monetary gains accruing for a community as a result of the reduced enrollment. This category generally refers to potential savings in the salary and

retirement accounts due to the need for a smaller staff. Savings in this budgetary division are shown as the difference between the cost of operating a regular school year program for the projected regular school enrollment and cost of the longer year program for a reduced enrollment.

(b) Savings in Transportation Costs

Communities which provide transportation for a large segment of the school population may anticipate a reduction in transportation costs with the decreased school enrollment.

(c) Savings in Capital Outlay

School construction can be eliminated or minimized with the release of classroom space. Each classroom saved can result in a saving of \$45,000 to \$50,000 in capital expenditures.

(d) Savings in Debt Service

Refers to a potential monetary gain to a community in terms of saving 25 to 30 years of interest charges on money which would have had to be borrowed if additional classrooms had to be constructed.

(e) Savings in Building Operating Costs

Operating costs, including heat, light, power, insurance, maintenance and repairs; salaries of custodians, school administrators, cafeteria workers and other specialists, are less when school construction is curtailed as a result of an extended school year program which reduces the total school enrollment.

(f) Income from Tax Rolls

Land and buildings are taken off tax rolls when new schools are built. This loss can be lowered when the release of classrooms decreases the need for new schools. Savings may be considerable in urban areas with high property value.

Introducing the "E" Term Concept

Many colleges and universities have adopted a form of trimester or four quarter organization in an attempt to offer a continuity to their programs and to save space. Unfortunately, they have often had to cope with the problem of unbalanced enrollment during the third or fourth terms. In an attempt to eliminate this problem in the elementary and secondary schools, the concept of an "E" term was devised. Through the use of a designated number of "E" terms the enrollments for a given term are equalized.

The "E" term can take on many meanings. "E" can stand for extra education. It can refer to enrichment opportunities or excellence in education. It provides more extra terms during a given sequence of grades.

Pupils who complete a four year high school program will work through eight terms or semesters. If these pupils were working in a trimester program where the "E" term is recognized, they would have nine terms in which to complete the equivalent of eight semester's work. This extra term is the "E" term.

When Does a Pupil Have an "E" Term?

Figure 6 illustrates an "E" term. Actually, it need not be identified as falling between grades 10 and 11. The "E" term concept calls for the acceptance of the fact that a student will have one, two, or three extra terms in which to broaden his curriculum, take a longer time to complete regular courses difficult for him, and build up backgrounds in fundamental skills.

Knowing that one or more extra terms to complete a program of study are available to him, a pupil can, with teacher or counselor help, plan a program based on his special needs. If it is decided that a seventh grade pupil cannot make progress because of a reading deficiency, his first term of the seventh grade may be considered as the "E" term for a part of his program since it will be largely devoted to building up his background in reading. This pupil can proceed with arithmetic and other seventh grade subjects with the understanding that he merely delays his work in language arts or social studies until he can show greater skill in areas depending upon reading proficiency. Similarly, pupils may use the equivalent of an "E" term to enable them to enter a college in the spring term which may be the only time openings are available.

"E" Terms Help Pupils Obtain More and Better Education

With good guidance, boys and girls can plan more effective programs through the flexibility that "E" terms provide. Pupils who have one, two, or three extra terms of education in three, four, or five years can obtain more education without having to give up as much of their summers as they would if they attended summer school. The "E" terms will help many pupils pace their way through school, allowing them to derive more from courses they take and enabling them to add courses otherwise closed to them due to the lack of sufficient terms.

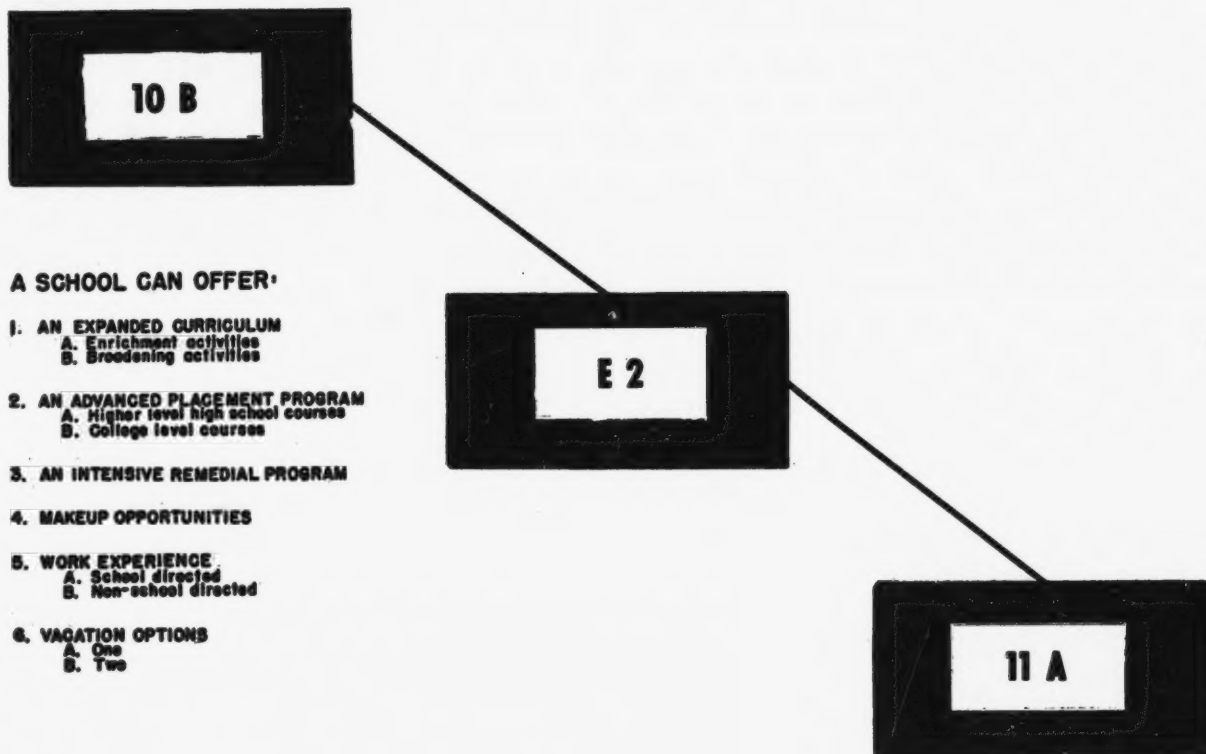
The slow learning student may lighten his daily class load by deferring some courses for the "E" terms, making sure he learns each step well before he takes the next. Other students may use the "E" terms for additional courses in foreign languages, mathematics, art, typing, and music, thereby meeting both college and vocational goals. Pupils who have failed subjects may make up lost work in the "E" terms without overloading their programs.

Suggestions:

1. The "E" term may be used at the seventh grade level to develop reading and language skills and to build up mathematics skills and concepts prior to starting regular seventh grade courses.
2. A good course in chemistry, spread over three trimesters through the use of an "E" term, would be especially valuable to girls interested in nursing.
3. Through the use of the "E" term, some pupils may be put under less pressure by limiting themselves to four academic courses instead of five or six. This will also permit them to engage in other desirable

Figure 6

THE "E" TERMS OFFER MORE EDUCATIONAL OPPORTUNITIES



activities such as athletics, chorus, newspaper, and student government.

4. A work experience program for all pupils may be developed on a rotation basis through the use of one "E" term or a split "E" term.

Figure 6 outlines some of the advantages which may lie in the use of the "E" term. While a vacation option is shown as a possibility, it is not recommended on a mass scale. However, there may be some justification in allowing pupils to use the equivalent of one out of three "E" terms for a desirable work experience, for travel with parents, or in order to leave school early in the senior year for entrance into college in other than the crowded fall term.

Will the "E" Terms Result in Higher Educational Costs?

Some critics have said that the "E" terms will cost extra money. This is not a valid criticism because the cost of the extra courses or extra education has already been included in all cost and savings predictions reported in this study. This has been based on an attempt to limit the saving of chronological time to one full year of schooling.

"E" terms such as those shown in figure 18 are included as a part of a mandatory program. They represent time blocks for a given class or grade. In the flow charts the "E" terms are shown as one of the reduced grade levels. Where pupils continue to take a full class schedule, there will be no extra costs since fewer students will be taking courses.

Schools using the "E" terms to provide a rotating work-school experience or vacation elective can obtain additional savings in dollars and classrooms through a reduction in pupil enrollments.

Extended School Year Programs Can Help Resolve Social and Economic Problems Created by Dropouts

Though extended school year programs are not panaceas, they do have far reaching side effects which cannot be ignored. One of these is the impact upon potential dropouts,

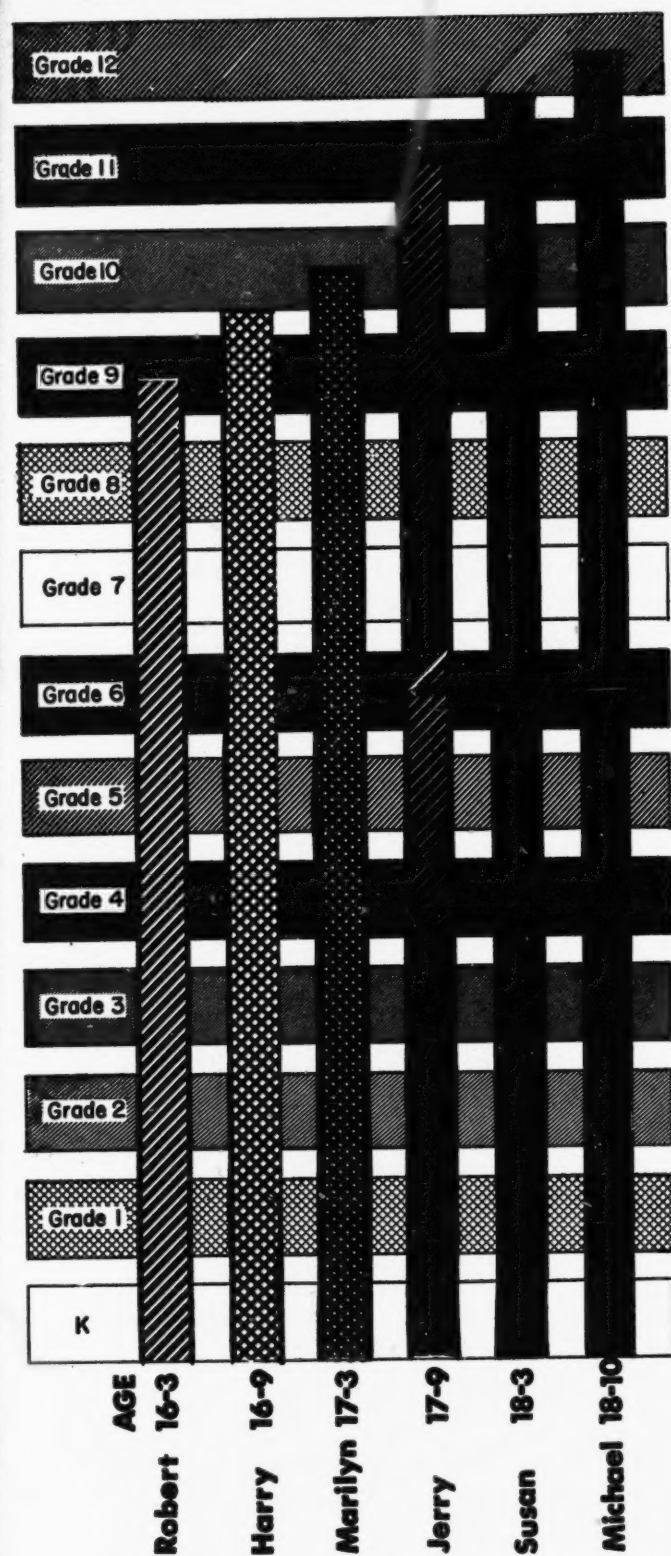
While a secondary school extended school year program will be of great benefit to the potential dropout, most of these pupils will find advantages in the Extended K to 12 programs or the Continuous School Year Program. In these two programs, the school has an opportunity to do something positive for the potential dropouts before their problems become acute. Extra days for close work with teachers have great value.

1. Extended school year programs which start in the elementary school can help potential dropouts reach higher steps on the educational ladder. The potential dropout who is able to accumulate 24 to 30 extra days of education each year between ages 5 to 16 can acquire the equivalent of 264 to 330 extra days of instruction or the equivalent of almost 2 extra

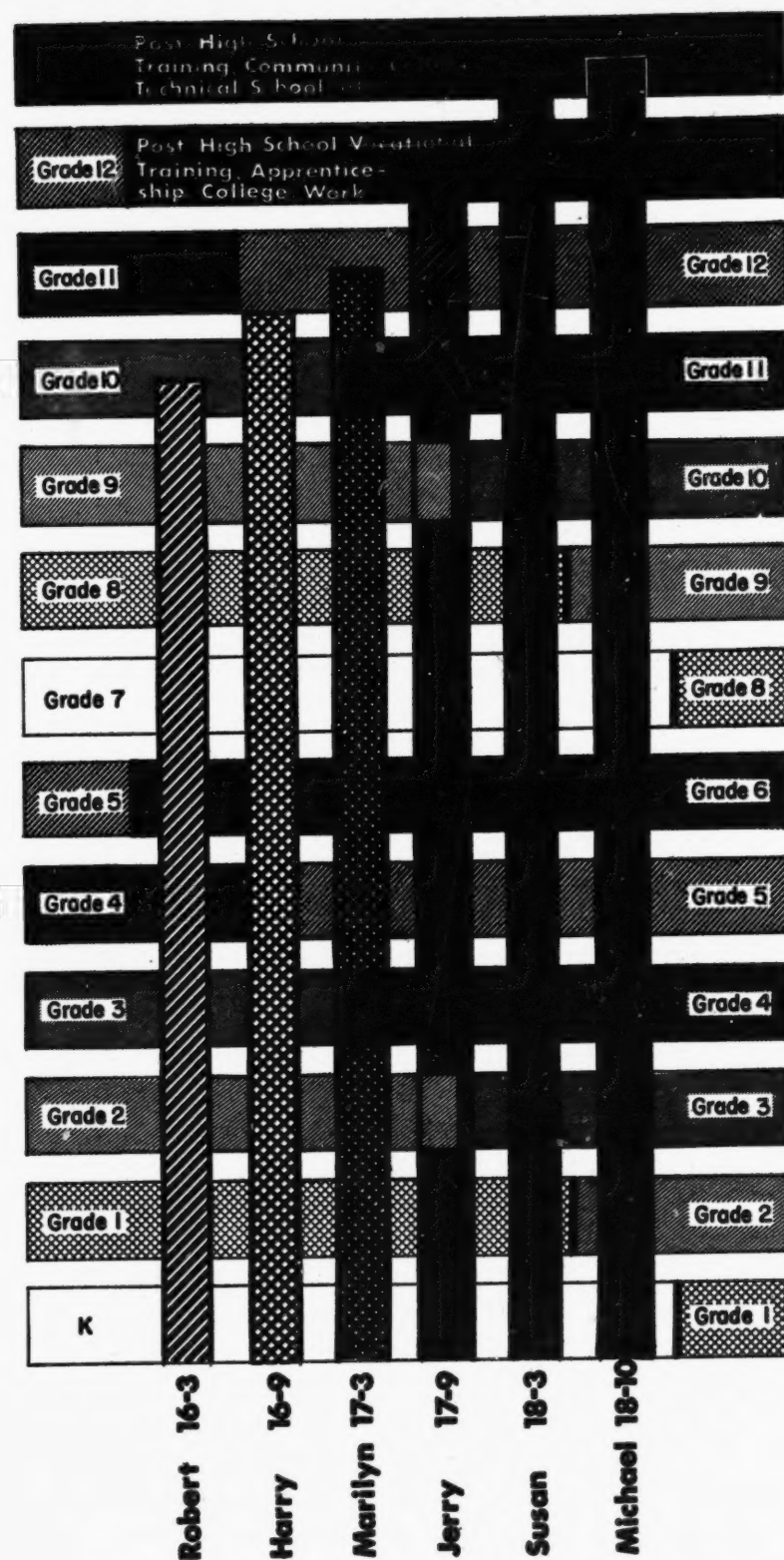
Figure 7

EDUCATIONAL LEVELS REACHED BY DROPOUTS

Regular Year (180 Days)



Extended Year (210 to 220 Days)



years of schooling. Under a 205 day school calendar, pupils will have 100 extra days of schooling by the end of the primary grades, 175 extra days by the end of the intermediate grades, and 250 extra days when they complete junior high school.

Figure 7 shows the educational levels attainable under the regular and extended school year programs. It is evident from the illustration that pupils taking part in an extended school year program starting in the elementary school can be much closer to graduation by the time they can legally leave school than they would under the traditional 180 day school calendar.

The Extended K to 12 program has an advantage over a secondary Extended School Year program in that it gives primary teachers extra instructional time in children's most formative years. The combination of a longer school year with the same teacher plus a shorter and less disruptive summer vacation will help boys and girls maintain skills and understandings. This can help them acquire a greater sense of security and satisfaction as they work with higher level concepts and skills in the middle and upper grades.

2. Extended year programs at secondary school levels will also help reduce the rate of dropout. The potential dropout loses the advantage of extra days of elementary schooling, but his new program can still help him accelerate his progress to higher educational secondary levels. This is evident in trimester or quadrimester flow charts which repeatedly show more graduates in an extended year program than will be found in a regular school year program.

The impact of the trimester and quadrimester secondary school programs can be seen in the following attrition study:

In 1964 the dropout rate in the cities ranged from 14 to 35 percent. In some rural counties it ran slightly higher, but the dropout rate for New York State averages 25 percent. This figure was based upon a June 1965 graduating class of 180,183, which had numbered 239,161 when the pupils started their 9th grade program.

On the left one can see the actual attrition which occurred as pupils went from the 9th to the 10th grade, from the 10th to the 11th grade, and from the 11th to the 12th grade. On the right one can see the projected enrollment change due to the saving of one year.

Increasing the number of graduates from 180,183 to 208,663 results in a corresponding decrease in the number of dropouts. Extra "E" terms at both elementary and secondary levels would further improve the gain.

Credit for saving 28,480 pupils in the hypothetical illustration may be attributed to the mechanics of an extended year flow pattern. By reducing the number of years of attendance in school, plus increasing the amount of instructional time available in 5 extended school years, graduates are in a better position to assume adult responsibilities than they would be at the same chronological age under the regular school year program.

Figure 8

Comparative Holding Power for the State Between Regular School Year Programs and an Extended School Year Program (Class of June 1965)

Regular School Year Plan (Actual)					
Grade	9	10	11	12	Graduates
9	239,161				
10		234,864			
11			213,663		
12				192,520	
Graduates					180,183
No. of Potential Dropouts					58,978
Percent Leaving School Prior to Graduation					25%

Extended School Year Plan (Estimated)				
Year	9-10	10-11	11-12	Graduates
1st	239,161			
2nd		234,864		
3rd			213,663	
Graduates				208,663*
No. of Potential Dropouts				30,498
Percent Leaving School Prior to Graduation				12.8%

*Is based on the assumption that 5,000 pupils will have dropped out of school between October and June.

This saving of dropouts and the increasing of the schools' holding power is one of the important byproducts of the extended school year program. Because the majority of dropouts create innumerable problems for society, and for themselves, any reduction in their number will bring about many indirect savings in terms of facilities that would have to be maintained for their care.

Part II

The Nature of the Continuous Progress Plan

The Continuous Progress Plan is one of the easiest to understand and to administer. While it is customary to think of it as an elementary school plan, it can be adapted to the secondary school. The goal of this extended year program is to save one elementary school year out of six or seven without concern about terms, trimesters, or quadrimesters. Pupils work through sequential phases of the curriculum without excessive time breaks. For example, in a 210 day school year many kindergarten pupils will complete a year's work at the end of 180 days (the length of the regular school year.) Under the Continuous Progress Plan these pupils will devote the last 30 days of the 210 day school year to first grade work. In the second year, they need spend only 150 days more to complete a first grade program.* They will, therefore, have 60 days that year to spend on second grade work.*

Figures 9 and 10 illustrate this pattern through grade six. Through a program of continuous progress, the average and above-average pupils are able to absorb a portion of the succeeding grade during each of their school years until the sixth year when they are able to round off any fifth grade work which was not completed and then devote the remaining portion of the year, about 180 days, to what was formerly sixth grade work. Six years suffices for what now takes seven years.

The Continuous Progress Plan need not necessarily be classified as a nongraded program because the entire curriculum can be redistributed over six extended years instead of seven shorter ones. However, the success of the Continuous School Year program depends upon the development of a flexibility in the school that will enable boys and girls to progress as fast as they reach a stage of readiness for new learning skills and concepts.

What Is Meant by Learning Levels?

The elementary school with kindergarten was considered a seven-graded school. As a result of the new proposed program, the entire elementary curriculum will be taught in six extended years or levels. A "Learning Level" refers to the scope of work covered in a year which includes a combination of grades. Parents and teachers may continue to refer to "grades" but the meaning will lose significance as pupils complete the work of one grade and begin another during the course of one extended year.

The term "Learning Level" should replace "grade" in defining the work of a longer school year. A pupil who is starting his third year of actual schooling will enter "Level Three" instead of Grade Two.

*Continuous progress implies a study progression to higher learning levels when children are ready. Thus, intellectually gifted pupils may begin formal reading and number work earlier in the year than less mature individuals. This slower rate of learning will be recognized as the pupils progress from one teacher to the next.

Figure 9

TIME AND GRADE CONCEPTS IN REGULAR AND CONTINUOUS SCHOOL YEARS PLANS

Regular School Year Plan	Length of the School Year	Continuous School Year Plan	Length of a school Year
Kindergarten	180 days	Level one	180 days
			30 days (210)
1st Grade	180 days	Level two	180 days
			30 days (210)
2nd Grade	180 days	Level three	180 days
			30 days (210)
3rd Grade	180 days	Level four	180 days
			30 days (210)
4th Grade	180 days	Level five	180 days
			30 days (210)
5th Grade	180 days	Level six	180 days
			30 days (210)
6th Grade	180 days		
TOTAL INSTRUCTIONAL DAYS IN THE REGULAR SCHOOL YEAR PLAN 1260		TOTAL INSTRUCTIONAL DAYS IN A CONTINUOUS SCHOOL YEAR PLAN 1260	

Time and Grade Concepts in the Con- tinuous School Year Plan

Without changing the organizational pattern, one year out of a six to seven year grade sequence can be saved through lengthening the school year. Six extended school years will provide the same number of instructional days as seven regular 180 day school years.

The length of a Continuous School Year will be determined by the number of grades in the new program. An increase in the number of grades that is included will result in a decrease in the length of the calendar required for equalizing time. A 216 day calendar will be needed to equalize time if one year out of six is to be saved. A 210 day calendar would necessitate the lengthening of the school day in order to equalize time over a six year period. A program including grades K to 8 could be completed with a 203 day extended year program to save one year.

Will Pupils Obtain More Days of Education Under the Continuous Progress Plan?

The Continuous Progress Plan does not provide more days than the regular 180 day program if it is limited to the saving of one year in a six or seven year sequence. This is illustrated in figure 9, which shows the students in the Continuous School Year Plan obtaining the same number of instructional days (1,260) in six lengthened school years as could be obtained in seven regular school years.

Should the length of the school year remain fixed, with the inclusion of additional grades, as seventh and eighth, the pupils would obtain an increase in the total number of days of instruction.

To offer the pupils in grades K-6 a 204-210 day school year, plus a lengthened school day, would give extra instructional time.

For example, the lengthening of a school day by 30 minutes would result in giving children the equivalent of 21 extra days of instruction or the equivalent of a 231 day school year.

Continuous Progress and the Extended K to 12 Plan

The concept of continued pupil progress from one learning level to the next is recommended for the Extended K to 12 program's lower grades. In the regular Continuous Progress Plan, the pupils will follow the regular graded curriculum with modifications being made in terms of a rescheduling of time. In the Extended K to 12 Program, if the saving of 1 year in the first 6 or 7 is not planned, it is expected that the entire elementary school curriculum will be broadened to provide a thorough knowledge of fundamental skills and the understanding that is necessary for success at higher grade levels and in life itself.

How Long Does It Take to Obtain Reductions in the Number of Classrooms or Classroom Teachers With the Continuous School Year Plan?

Educators can count on a 6 year adjustment period for a Continuous Progress Plan based on saving one year out of seven. This means there will be no enrollment reduction until the seventh year after the program has been introduced. The transition period may be shortened to six years if the introductory year includes first grade pupils as well as kindergarten children.

Figure 10

CURRICULUM ADJUSTMENT NECESSARY TO PROMOTE A PROGRAM OF CONTINUOUS PROGRESS IN AN EXTENDED SCHOOL YEAR

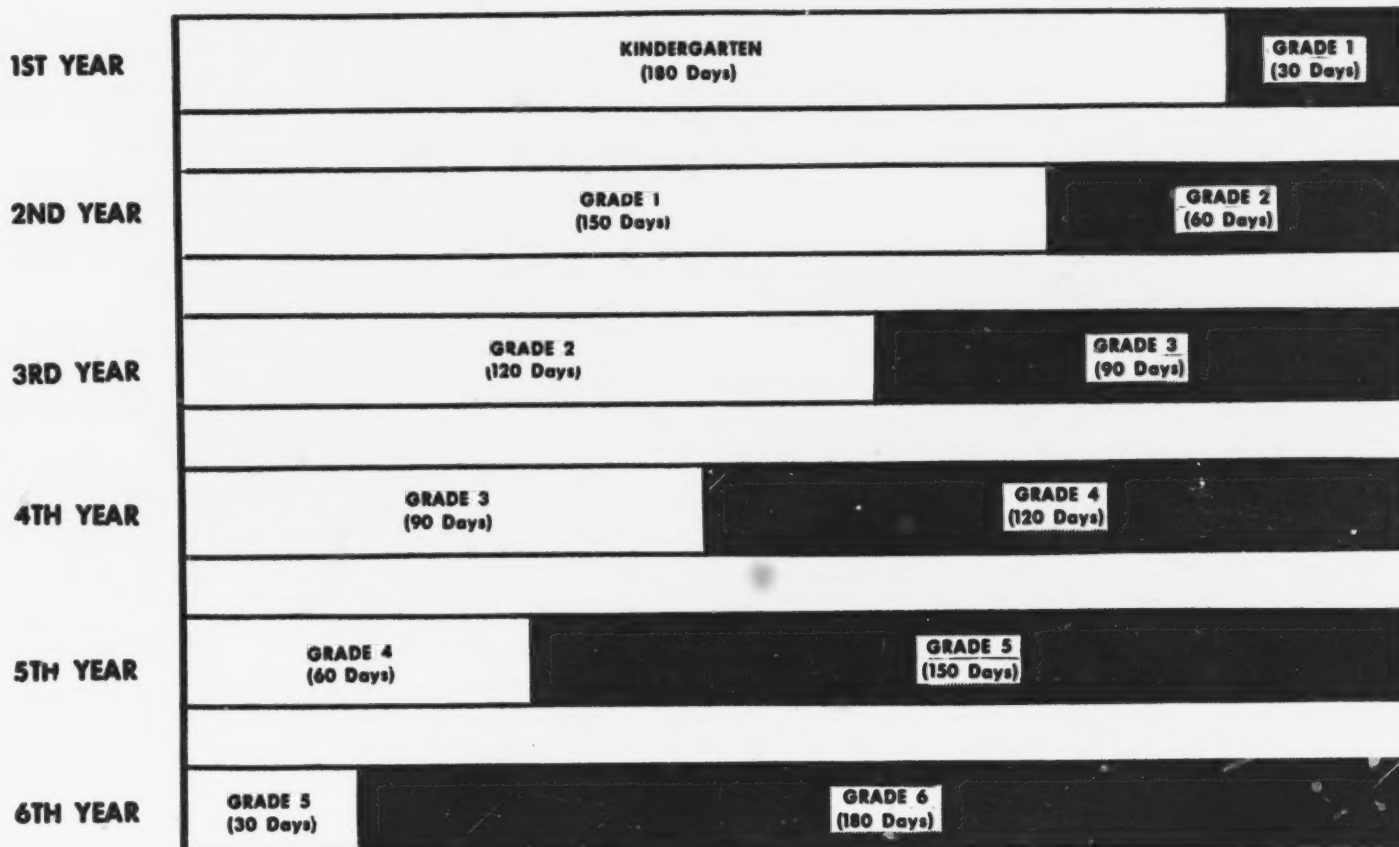


Figure 11

The Flow of Students Through a Program of Continuous Schooling in a Sample School System
Based on an Adjusted Straight Line Projection

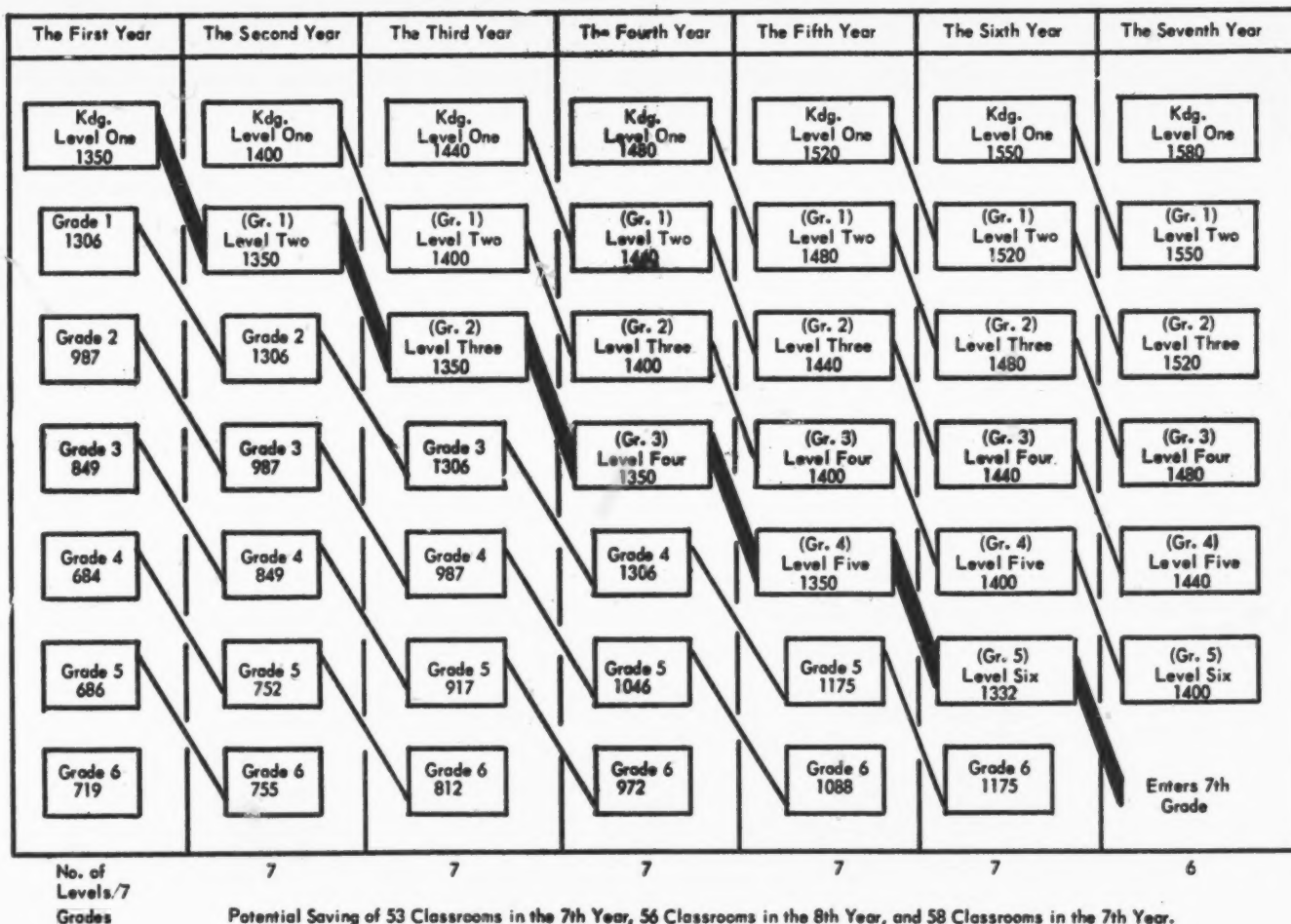


Figure 11 depicts the progress of pupils in designated grades. The first class to start the program is the kindergarten. This group is shown progressing through levels one to six, at which time it moves on to grade seven, after only six years of schooling. Similarly, the first group of grade one pupils is shown going through to seventh grade in five years. This saving of one year in six will reduce the number of grades or levels in the sixth year. If this class does not have the advantage of the longer school year, the reduction in enrollment, teachers, and classrooms will not take place until the seventh year. However, the cumulative adjustment year costs will be less.

While there are advantages to the Continuous School Year Plan, the fact that it requires five or six years to realize economic advantages make trimester and/or quadrimester programs more desirable.

A Word of Caution

The Continuous Elementary School Year Plan will provide a school system with additional classrooms at the end of a six year adjustment period, if the pupils leaving level six can be provided for in grade seven. The entire elementary school will benefit from the release of the classrooms formerly occupied by sixth graders, but this plan presupposes that the secondary school will be able to house an additional number of students equivalent to an extra class or grade for the next six years.

If a secondary school cannot accommodate the wave of students entering the seventh grade, it may be desirable to temporarily adopt an extended school year program for grades 7 to 12 or grades 9 to 12. If this is done early enough, classroom space can be available when the first continuous progress class leaves the elementary school.

Figure 12

The All School Approach To The Continuous Progress Plan

The First Year	The Second Year	The Third Year	The Fourth Year	The Fifth Year	The Sixth Year
Level I 210 days	Level I 210 days	Level I 210 days	Level I 210 days	Level I 210 days	Level I 210 days
Level II 210 days	Level II 210 days	Level II 210 days	Level II 210 days	Level II 210 days	Level II 210 days
Grade 2 210 days	Level III 210 days	Level III 210 days	Level III 210 days	Level III 210 days	Level III 210 days
Grade 3 210 days	Grade 3 210 days	Level IV 210 days	Level IV 210 days	Level IV 210 days	Level IV 210 days
Grade 4 210 days	Grade 4 210 days	Grade 4 210 days	Level V 210 days	Level V 210 days	Level V 210 days
Grade 5 210 days	Grade 5 210 days	Grade 5 210 days	Grade 5 210 days	Level VI 210 days	Level VI 210 days
Grade 6 210 days	Grade 6 210 days	Grade 6 210 days	Grade 6 210 days	Grade 6 210 days	Grade 7

Organizational Patterns During the Transitional Years

The all school approach. This plan is based on the adoption of the new lengthened school year calendar for all children in the school with the understanding that the acceleration of the curriculum will begin with the pupils in first grade and kindergarten. All other children will use their extra time to acquire proficiency in fundamental skills areas or to enrich and broaden their backgrounds. In each subsequent year the concept of continuous progress along the new extended time line will be adopted for another class or grade. At the end of five years the entire school population will be working within the framework of the Continuous Progress Extended School Year Plan.

The gradual approach. Adjustment year costs can be decreased sharply through the introduction of the new program to one new class or grade each year. Thus, a new continuous school year program may start with the kindergarten or with the kindergarten and first grade children. They attend school for the full 210 days while the pupils in the other grades continue to work through the normal 180 day school calendar. In each succeeding year a new class or grade is introduced to the new program until the entire school has adopted a lengthened school year program.

Figure 13

The Gradual Approach to the Continuous School Year Plan

The First Year	The Second Year	The Third Year	The Fourth Year	The Fifth Year	The Sixth Year
Level I 210 days	Level I 210 days	Level I 210 days	Level I 210 days	Level I 210 days	Level I 210 days
Level II 210 days	Level II 210 days	Level II 210 days	Level II 210 days	Level II 210 days	Level II 210 days
Grade 2 180 days	Level III 210 days	Level III 210 days	Level III 210 days	Level III 210 days	Level III 210 days
Grade 3 180 days	Grade 3 180 days	Level IV 210 days	Level IV 210 days	Level IV 210 days	Level IV 210 days
Grade 4 180 days	Grade 4 180 days	Grade 4 180 days	Level V 210 days	Level V 210 days	Level V 210 days
Grade 5 180 days	Grade 5 180 days	Grade 5 180 days	Grade 5 180 days	Level VI 210 days	Level VI 210 days
Grade 6 180 days	Grade 6 180 days	Grade 6 180 days	Grade 6 180 days	Grade 6 180 days	Grade 7

A modified gradual approach to the new program calls for the introduction of the lengthened school year calendar to all children in the primary grades with the extra time for second and third grade pupils being used to enrich the curriculum. In the next two years the second and then the third grade pupils are added to the program. In the fourth year the intermediate grade pupils begin to work through a full extended year with the extra time being used to enrich the fifth and sixth grade curriculum. In the next year the fifth grade is added to the program and then the entire school is placed on a full continuous progress extended school year basis.

Projecting Costs of an Adjustment Year for the Continuous School Year Program

As a basis for projecting the costs of an adjustment year for a Continuous School Year Program, all phases of the operating expenditure budget which would be subject to increase through a longer school year were isolated. Percentage increases were computed for these items. Calculations made for individual communities and on a statewide basis show that a potential increase of 3.6 percent in total expenditures may be expected if the continuous school year program is introduced on the elementary (k-6) school level.

When the new program becomes self-sustaining after the five or six year transitional period, the school system operates with a surplus instead of a deficit in operating cost. This new savings will approximate 5 to 6 percent of the total operating expenditures of a given school budget.

A Gradual Approach to the Continuous School Year Plan Will Result in Decreased Adjustment Year Costs

While a reduction in school costs may be an underlying reason for adopting the continuous school year plan, school board members must be prepared to accept the fact that there will be some adjustment year costs during the transition year. Since these costs are primarily due to the increase in teacher salaries for another month's service, the number of teachers involved in the transition period will have a direct bearing on total adjustment year costs that have to be carried.

Cost predictions which have been made for both the gradual approach and the simultaneous all-school approach show definite financial advantaged in the former plan.

Illustration:

In a sample school district cost projections were made to show the total adjustment costs for the six year transition period for both an all-school approach and a gradual or progressive approach to a new continuous progress program. The plan which called for adding one new grade each year resulted in a total saving of \$464,768.

Total Six Year Adjustment Costs for
the All-School Approach\$935,238

Total Six Year Adjustment Costs for
the Gradual (One Grade a Year
Approach).....\$470,460

Potential Cumulative Savings in
Adjustment Year Costs Resulting
from the Gradual Approach\$464,778

The potential savings which may accrue to a community through the gradual approach must be considered in terms of other factors such as the value of the extra days of instruction for pupils not working within the bounds of a new continuous progress curriculum. For some, the opportunity to use the extra days to master fundamentals or to engage in enrichment activities may be worth more than the dollars saved through the gradual approach. In addition, the role of the school administrator may be simplified if all pupils and teachers are working through the same calendar year. For example, salary adjustment may be calculated on a much different base when an entire staff is working on the same calendar than when they are working on two different school calendars.

The Nature of the Continuous Progress School Year Calendar

A good continuous school year program for elementary school children does not depend upon the division of a school year into semesters, trimesters, or quadrimesters. Recommended lengthened school year calendars provide for all major holidays plus a Christmas and spring recess.

In one pilot school children started classes on the 23rd of August and worked through July 16th. They completed a full 210 day program without losing interest and enthusiasm for their work. Their late June and early July attendance of 95 percent was 3 points higher than the average for the rest of the year.

Figures 14 and 15 illustrate types of extended school year calendars that can be adopted. Figure 14 is based on an early return to school in mid-August in order to guarantee an early summer vacation for pupils, teachers, and parents who still feel the need to engage in special activities scheduled for the month of July, i.e. camp and summer school. Figure 15 delays the school opening until after Labor Day with the understanding that schools will not close until mid-July. School openings could be deferred even later in areas like Southern California where August and September temperatures tend to run higher than June and July temperatures.

A school calendar may be integrated with the vacation calendar of a particular regional need or practice. Where conflicts arise, boys and girls should be able to travel with parents to different parts of the country during the summer in the same manner that other thousands go to Florida or Arizona with their parents in the winter.

Figure 14

A Sample Continuous Progress School Calender for 1966-67

School Calender Variation No. 2

Month	Day	Legend	Days of Schooling
August	17	Children Return to School	11
September	5	No School - Labor Day	21
October	3	No School - Teachers Conference	20
November	11	No School - Veteran's Day	
November	24-25	No School - Thanksgiving Recess	19
December	23	Last Day of School Before Christmas Recess	17
December	24-		
January	1	No School - Christmas Recess	
January	2	School Reopens	22
February	12	No School - Lincoln's Birthday	19
February	22	No School - Washington's Birthday	
March	17	Last Day of School Before Easter Recess	
March	18-26	No School - Easter Recess	
March	27	School Reopens	18
April			20
May	30	No School - Memorial Day	22
June	30	Last Day of School	<u>22</u>
Total Number of Days in 1966-67 Extended School Year			211

Figure 15

A Sample Calendar for a Continuous Progress School Year in 1966-67

School Calendar Variation No. 3

Month	Day	Legend	Days of Schooling
September	6	Children Return to School	19
October	3	No School - Teachers Conference	20
November	11	No School - Veteran's Day	
November	24-25	No School - Thanksgiving Recess	19
December	23	Last Day of School Before Christmas Recess	
December	24-		
January	1	Christmas Recess	17
January	2	School Reopens	22
February	22	No School - Washington's Birthday	19
March	24	No School - Good Friday	
March	25-		
April	2	Easter Recess	17
April	3	School Reopens	20
May	30	No School - Memorial Day	22
June			22
July	3-4	No School - Independence Day	
July	19	Last Day of School	<u>11</u>
Total Number of Days in 1966-67 Extended School Year			208

Part III

The Nature of the Trimester Plan

The trimester plan calls for the division of a longer school year into three terms or trimesters. With a small increase in the length of the daily class periods, two trimesters provide the same amount of instructional time as two regular semesters. A course is completed in two trimesters; new courses begin in the following trimester.

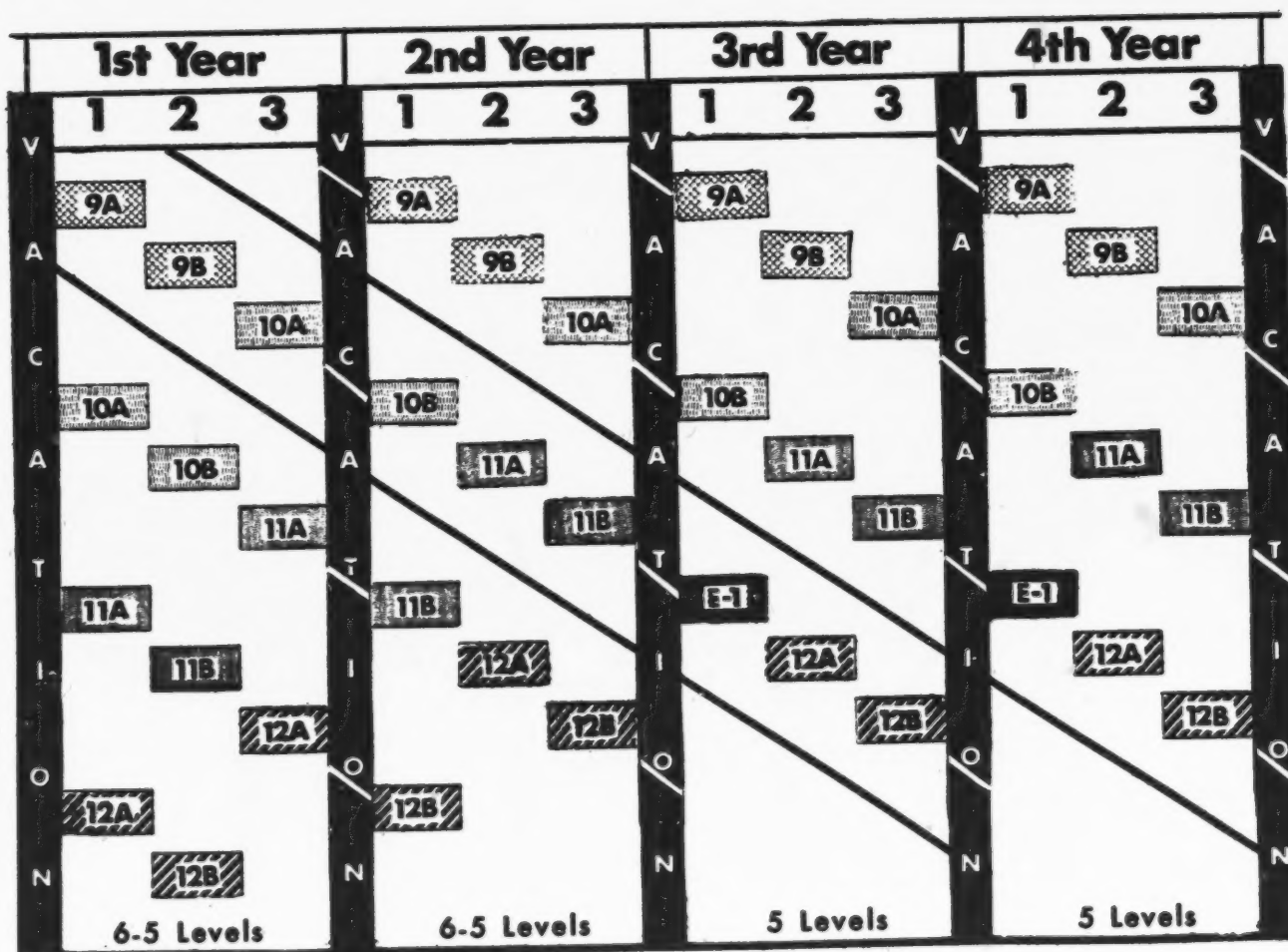
What Is Meant by a Three Year Trimester Plan?

The three year trimester plan is one which begins with four grades and reduces to three levels after the fourth trimester, saving one year in four.

Figure 16 shows the flow of pupils through a three year trimester. By following the flow of class "9A" (upper left corner) on a diagonal, it is apparent that a full four grade program plus one "E" term or extra term can be completed in a three year time span.

Figure 16

Student Flow in a Three Year Trimester Plan



Assuming 300 pupils at each grade level, the school houses 1,200 pupils during the first two terms. With the reduction to three levels in the third trimester, the enrollment is reduced to 900. The entrance of a new ninth grade class in the fourth term increases the enrollment to the original 1,200. However, by the end of this term, the flow pattern permanently decreases the number of levels to three and the enrollment to 900.

1. On the basis of a ratio of one classroom teacher for each 20 pupils. The reduction in enrollment of 300 students will release 15 teachers.

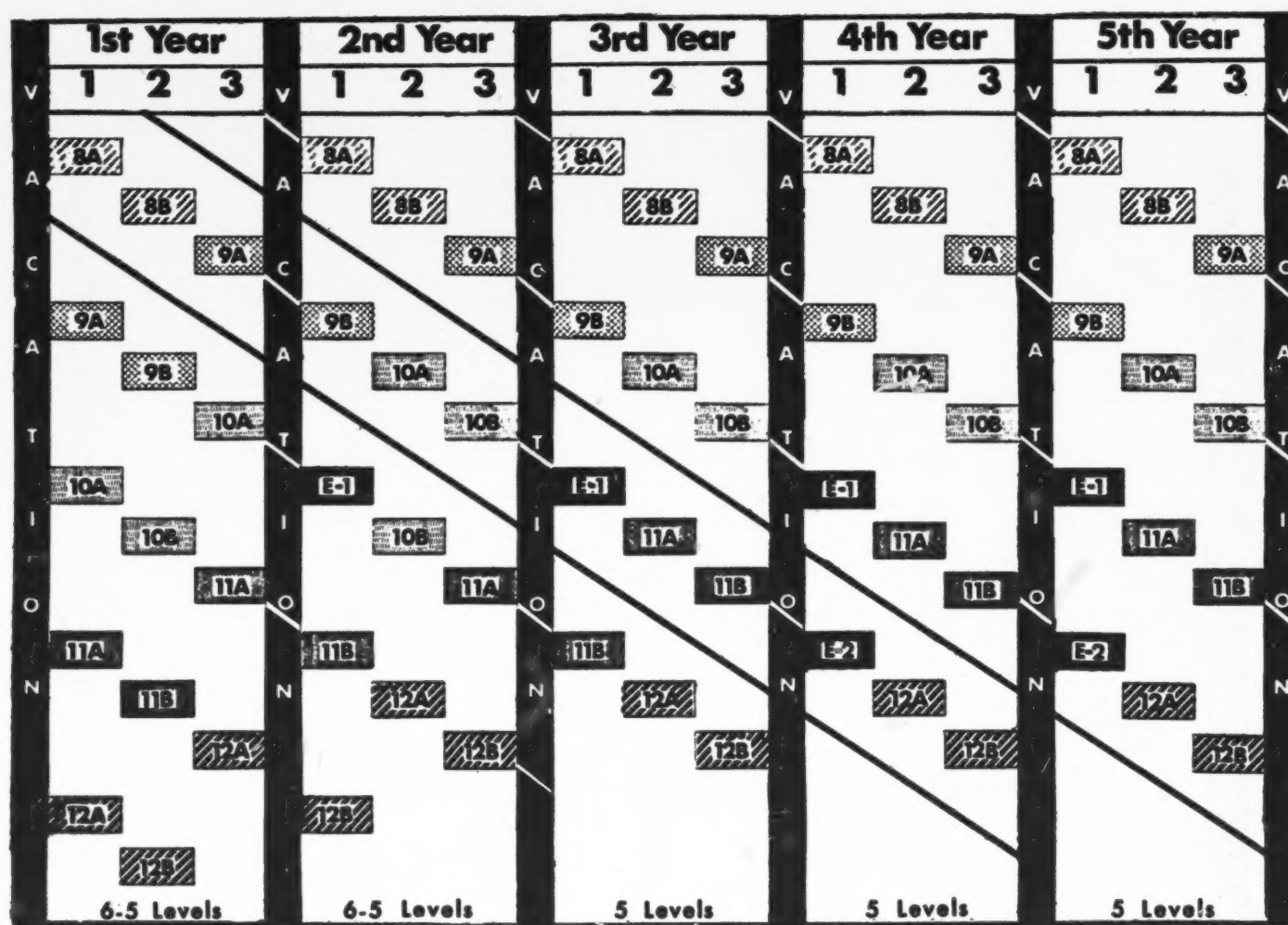
2. On the basis of a ratio of one classroom for each 25 pupils. The reduction in enrollment of 300 students will release 12 classrooms.

What Is Meant by a Four Year Trimester Plan?

The four year trimester plan, resulting in the saving of one year in five, involves grades 8 to 12. Beginning with five grades, it reduces to four levels after the fourth term. This program provides the same reduction in space and in classroom teachers as the three and five year trimester programs. Pupils in this program have the advantage of two "E" terms.

Figure 17

Student Flow in a Four Year Trimester Plan

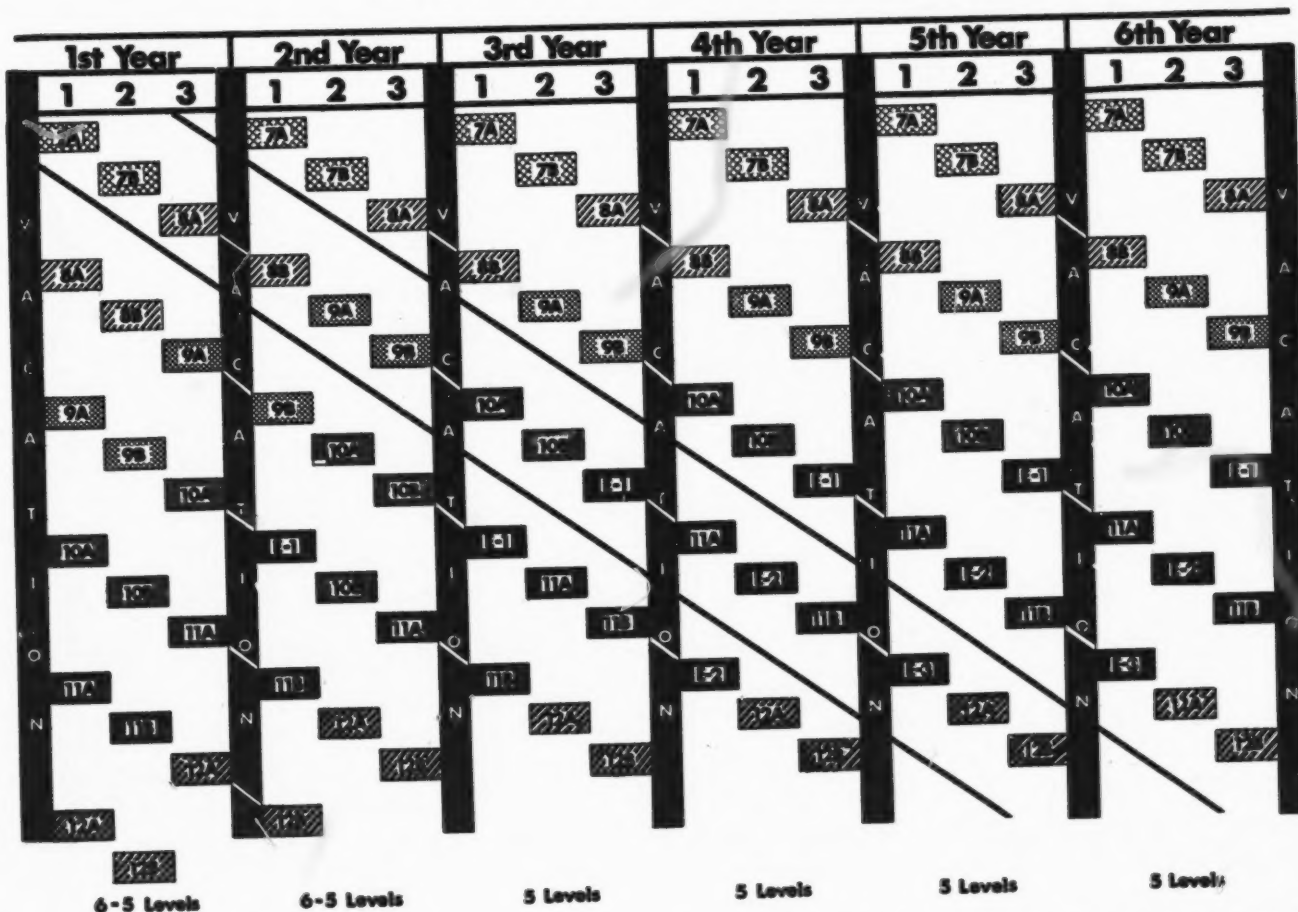


What Is Meant by a Five Year Trimester Plan?

The five year trimester plan is one which begins with six grades and reduces to five levels after the fourth term, saving one year in six. Figure 18 shows the flow of pupils through the five year trimester, with class "7A" (upper left corner) the first to complete the program. Following this class on a diagonal, it will be apparent that a six year program plus three "E" terms will be completed in the span of five extended years.

Figure 18

STUDENT FLOW IN A FIVE YEAR TRIMESTER



Assuming 300 pupils at each grade level, the school capacity will be 1,800 pupils for the first two trimesters. With the reduction to five levels in the third trimester, the enrollment is reduced to 1,500. A new ninth grade entering in the fourth term raises the enrollment to the original 1,800. However, this figure changes permanently to 1,500 with the reduction to five levels as a result of the flow pattern. On the basis of a pupil-teacher ratio of one to 20, staff will be reduced by 15 teachers. The reduction of 300 students, at the rate of 25 per classroom, will result in a saving of 12 classrooms. The space thus released can eliminate new construction and bond issues.

How Long Is a Trimester?

A trimester can be as long as a school system wants to make it. However, the two deciding factors are the length of the school year and the length of the class period.

The recommended trimester program calls for a 70 day trimester and a 210 day school year. Some educators have shown interest in a 204 day school year which would require a trimester term of 68 days with slightly longer periods. An extra week may be set aside for examinations and registration. College trimesters plans based on 14 or 15 week terms require 70 to 75 day trimesters for a 210 to 225 day school year.

The Nature of the Trimester School Calendar

The school calendar for a trimester program provides for a division of the lengthened school year into three trimesters ranging from 68 to 75 days in length. Ideally, each division will end with a one week recess falling at the end of the first and second trimesters. Figure 19 illustrates a calendar of this type.

How Long Are Trimester Class Periods?

Class periods are lengthened to equalize instructional time with that offered in a two semester program. The following minimum increases are recommended for designated length trimesters:

<u>Length Year</u>	<u>Length Trimester</u>	<u>Recommended Increase*</u>
225 Days	75 Days	8 Minutes
216 Days	72 Days	10 Minutes
210 Days	70 Days	11 to 12 Minutes
204 Days	68 Days	13 Minutes

Periods such as those listed will suffice to equalize time. This will especially be true where courses are extended to a full three trimesters in order to meet special pupils' needs. However, a school system desiring longer adjusted periods is free to set its own length.

How Many "E" Terms Are There in a Trimester Program?

The number of "E" terms is related to the number of school years in the trimester program. A trimester plan based on saving one year in four will include one "E" term; with one year in five, there will be two "E" terms; while a trimester plan based on saving one year in six will have three "E" terms. These "E" terms are not designed for further acceleration. It is recommended that they be used for broadening and enriching the curriculum and consolidating learning. An extended school year program based on the saving of one year out of seven will provide four "E" terms.

*Based upon average length periods of 40 minutes in New York City and 45 minutes for upstate New York classes.

Figure 19

A Sample Trimester School Calendar for 1966-67*

School Calendar Variation No. 4

Month	Day	Legend	Days of Schooling
<u>Trimester I</u>			
September	6	Start of Trimester I	19
October	3	No School - Teachers Conference	20
November	11	No School - Veterans Day	
November	24-25	No School - Thanksgiving Day Recess	19
December	16	Last Day of School in Trimester I	<u>12</u>
Number of School Days in Trimester I			70
<u>Trimester II</u>			
December	19	Start of Trimester II	
December	26-30	No School - Christmas Recess	5
January	2	School Reopens After Christmas Recess	22
February	22	No School - Washington's Birthday	19
March	17	Last Day of School Before Easter Recess	
March	18-26	No School - Easter Recess	18
March	27	School Resumes	
April	7	Last Day of School in Trimester II	<u>5</u>
Number of School Days in Trimester II			69
<u>Trimester III</u>			
April	10	Start of Trimester III	15
May	30	No School - Memorial Day	22
June			22
July	3-4	No School - Independence Day Recess	
July	20	Last Day of School in Trimester III	<u>12</u>
Number of School Days in Trimester III			<u>71</u>
Total Number of School Days in 1966-67			210

*Adjustments in opening or closing period may be made to conform with local industrial or business vacation patterns.

Calculation:

Based on Saving One Year in Six

- (a) In the two semester program, pupils work through 12 semesters (6 years x 2 terms).
- (b) A trimester plan based on saving one year in six will provide 15 terms (5 extended years x 3 trimesters equals 15 trimester terms).
- (c) Since the basic trimester program requires only 12 equalized trimesters, the three extra but required terms have been labeled "E" terms.

When Will Students Have the Advantage of an "E" Term?

For demonstration purposes "E" terms are shown in the illustrations as falling between designated trimesters. Actually, the "E" terms must be considered as a total time sequence with pupils using the extra time to plan an entire program of study or to make adjustments in an ongoing program.

How Can "E" Terms Be Used?

While "E" terms can be used to give boys and girls a work experience or to enter college at other than a regular fall term, many students will find the extra trimesters can help them modify a secondary school program in a number of ways.

Figures 20 to 26 show how "E" terms can be used to take part in an enriched program or to obtain more instructional time for designated fields of study.

Figure 20

POTENTIAL USE OF THE "E" TERM

1. Provide additional time blocks for pupils who need corrective or remedial help before going on with higher level learning activities.

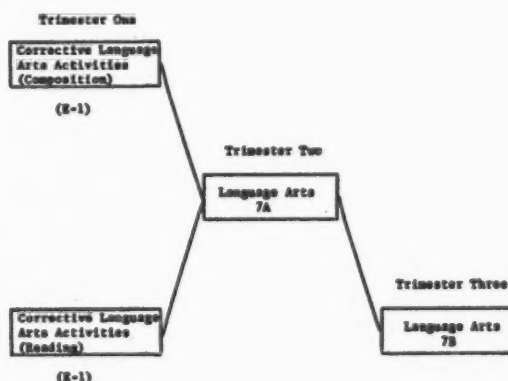


Figure 21

POTENTIAL USE OF THE "E" TERM

2. Provide additional time blocks for pupils to complete courses they have failed.

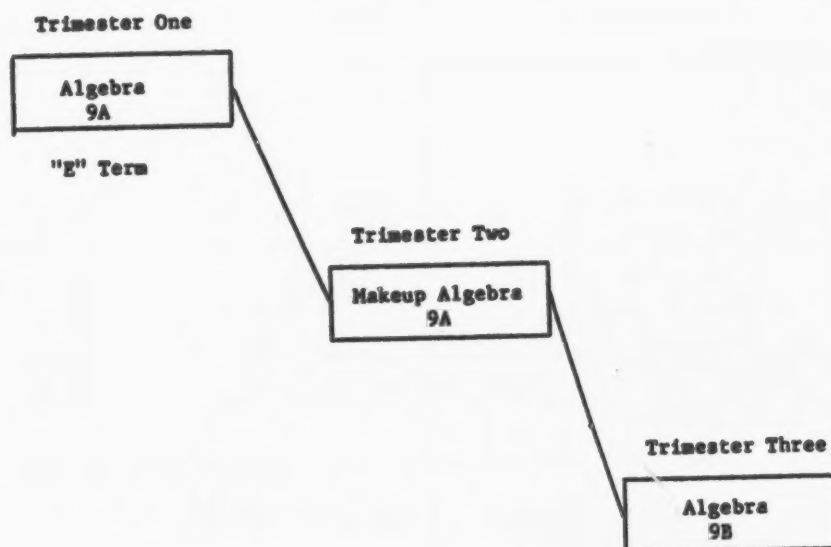


Figure 22

POTENTIAL USE OF THE "E" TERM

3. Provide additional time blocks for pupils who need more time to complete regular courses.

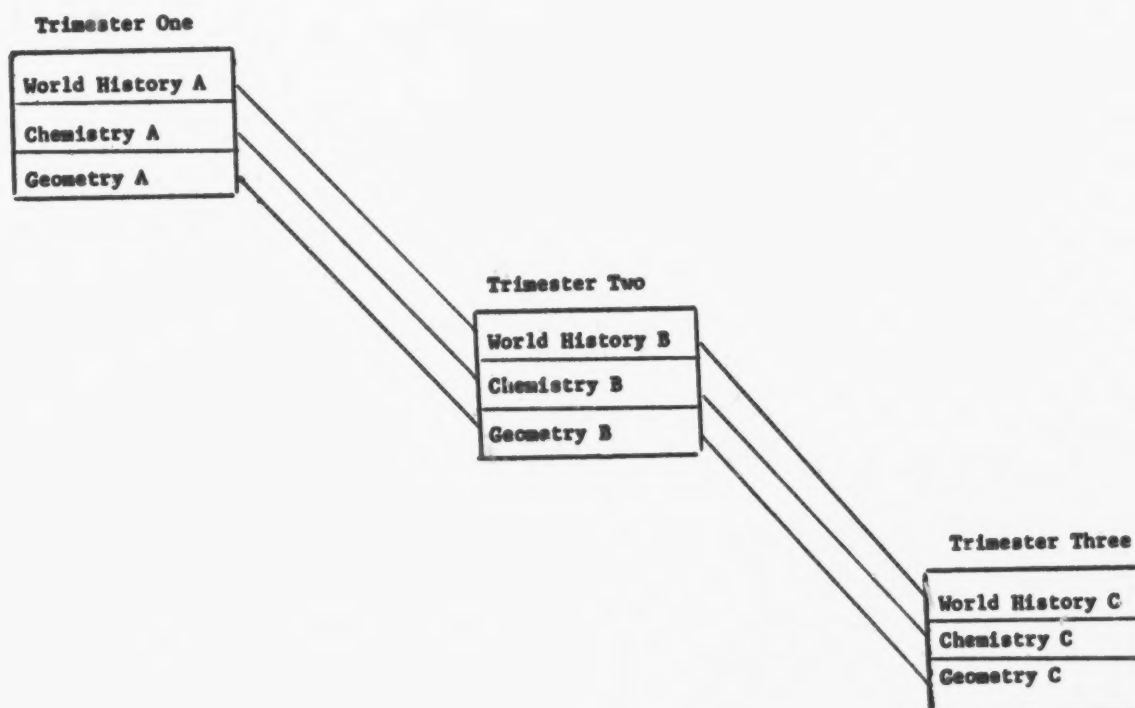


Figure 23

POTENTIAL USE OF THE "E" TERM

4. Provide students with an opportunity to take extra courses.

<u>REGULAR PROGRAM</u>		<u>TRIMESTER PROGRAM</u>		
Semester 1	Semester 2	Trimester 1	Trimester 2	Trimester 3
<u>First Year</u>		<u>First Year</u>		
English 9A Algebra IA Cit. Ed. A Gen. Sci. A French IA Phys. Ed.	English 9B Algebra IB Cit. Ed. B Gen. Sci. B French IB Phys. Ed.	English 9A Algebra IA <u>Typing</u> Gen. Sci. Phys. Ed. French IA	English 9B Algebra IB Cit. Ed. A Gen. Sci. Phys. Ed. French IB	English 10A Math 10A Cit. Ed. B <u>Music</u> Phys. Ed. French IIA
<u>Second Year</u>		<u>Second Year</u>		
English 10A Math 10 World Hist. A Biology A French IIA Phys. Ed.	English 10B Math 10 World Hist. B Biology B French IIB Phys. Ed.	English 10B Math 10B World Hist A Biology A French IIB Phys. Ed.	English 11A Math 11A World Hist B Biology B French IIIA Phys. Ed.	English 11B Math 11B Am. Hist IA Chem. IA French IIIB Phys. Ed.
<u>Third Year</u>		<u>Third Year</u>		
English 11A Math 11A Chem. IA Am. Hist IA French IIA Phys. Ed.	English 11B Math 11B Chem. IB Am. Hist IB French IIIB Phys. Ed.	English 12A <u>Psychology</u> <u>Am. Hist IB</u> Chem. IB French IVA Phys. Ed.	English 12B Math 12A Am. Hist IIA Physics IA French IVB Phys. Ed.	<u>Creative Wr.</u> <u>Math 12B</u> Am. Hist IIB Physics IB <u>Free</u> Phys. Ed.
<u>Fourth Year</u>		<u>Fourth Year</u>		
English 12A Math 12A Physics IA Am. Hist IIA French IVA	English 12B Math 12B Physics IB Am. Hist IIB French IVB	Girl Attends College		

Figure 24

POTENTIAL USE OF THE "E" TERM

5. Provide students with opportunity to take a lighter course load.

<u>REGULAR PROGRAM</u>		<u>TRIMESTER PROGRAM</u>		
Semester 1	Semester 2	Trimester 1	Trimester 2	Trimester 3
<u>First Year</u>		<u>First Year</u>		
English 9A Algebra IA Cit. Ed. A Gen. Sci. A French IA Phys. Ed.	English 9B Algebra IB Cit. Ed. B Gen. Sci. B French IB Phys. Ed.	English 9A Algebra IA <u>Free</u> Gen. Sci. Phys. Ed. French IA	English 9B Algebra IB Cit. Ed. A Gen. Sci. Phys. Ed. French IB	English 10A Math 10A Cit. Ed. B <u>Free</u> Phys. Ed. French IIA
<u>Second Year</u>		<u>Second Year</u>		
English 10A Math 10 World Hist A Biology A French IIA Phys. Ed.	English 10B Math 10 World Hist B Biology B French IIB Phys. Ed.	English 10B Math 10B World Hist A Biology A French IIB Phys. Ed.	English 11A Math 11A World Hist B Biology B French IIIA Phys. Ed.	English 11B Math 11B Am. Hist IA Chem. IA French IIIB Phys. Ed.
<u>Third Year</u>		<u>Third Year</u>		
English 11A Math 11A Chem. IA Am. Hist IA French IIIA Phys. Ed.	English 11B Math 11B Chem. IB Am. Hist IB French IIIB Phys. Ed.	English 12A <u>Free</u> Am. Hist IB Chem. IB French IVA Phys. Ed.	English 12B Math 12A Am. Hist IIA Physics IA French IVB Phys. Ed.	<u>Free</u> Math 12B Am. Hist. IIB Physics IB <u>Free</u> Phys. Ed.
<u>Fourth Year</u>		<u>Fourth Year</u>		
English 12A Math 12A Physics IA Am. Hist. IIA French IVA	English 12B Math 12B Physics IB Am. Hist. IIB French IVB	Girl Attends College		

Figure 25

POTENTIAL USE OF THE "E" TERM

6. Enable student to enter college at other than Fall term.

Trimester One

World History 12A
U.S. History IIA
Physics IA
Math 12A
French IVA
Phys. Educ.

(Sept. to Dec.)

Trimester Two

English 12B
U.S. History IIB
Physics IIB
Math 12B
French IVB
Phys. Educ.

(Dec. to March)

Trimester Three

Entered college
which accepted
new entrants
in April

(April to July)

POTENTIAL USE OF THE "E" TERM

7. Enables pupils to acquire an actual work experiences on a full time or part-time basis.

Trimester One

English 12A
Am. History 12A
Shorthand IIB-1
Shorthand IIB-2
Biology B
Phys. Educ.

Trimester Two

Bus. English
Sec. Prac. IA
Sec. Prac. IA
Office Prac.*
Office Prac.*
Office Prac.*

Trimester Three

English 12B
Sec. Prac. IB-1
Sec. Prac IB-2
Am. History IIB
Phys. Educ.
Bussiness Law

*Acquires actual experience by leaving school early to work for a trimester in an actual business office.

Does the School Day Have To Be Lengthened?

The rescheduling of a school day can help facilitate the transition to a longer school year. New flexible schedules make it possible to equalize instructional time without extending the day. While some school systems may elect to lengthen the day where it is already considered too short to meet student needs, recommended plans are based on the elimination of one class period. For schools with an eight period day, the new program will contain seven periods. For teachers, the elimination of many of the study periods will mean fewer study hall assignments (many teachers have expressed a desire to teach longer periods in preference to supervising the traditional study hall). Others have shown an interest in the flexible schedules which provide longer class assignments with a corresponding decrease in the number of class meetings per week.

What Is Meant by the Adjustment Years of a Trimester Program?

The term, "adjustment years," refers to the first two years of trimester operations. It is a transition period during which students, teachers, and school administrators must accept some change in established routines. Once the new flow pattern is established, many of the initial transition period problems automatically disappear. For example:

1. The problem of housing and educating the students from six grades for the first two trimesters of a five year trimester program eases with the early graduation of the 12th grade class in March or April. With the subsequent reduction in enrollment, only five grades of students have to be provided for in the third trimester. A number of classrooms will then become available, and a number of teachers can then be released to serve elsewhere.¹ The determination of how the newly found space is used and what the extra teachers do can lead to educational and financial gains which are difficult to calculate in terms of dollars and cents.
2. Since the transition period ordinarily extends through the first trimester of the second year of operation, special provision must be made either to accelerate one group of students for a term or to house and educate the remaining students in the second 12th grade class to move through the new organizational pattern. With the graduation of this class in December, the new flow pattern takes over in perpetuity with a resulting stabilization of pupil enrollments and staff needs.

¹Retirement, resignations and leave for teachers not fully certified should readily take care of the excess.

Figure 27

Flow Pattern in the Regular Two Semester Secondary School

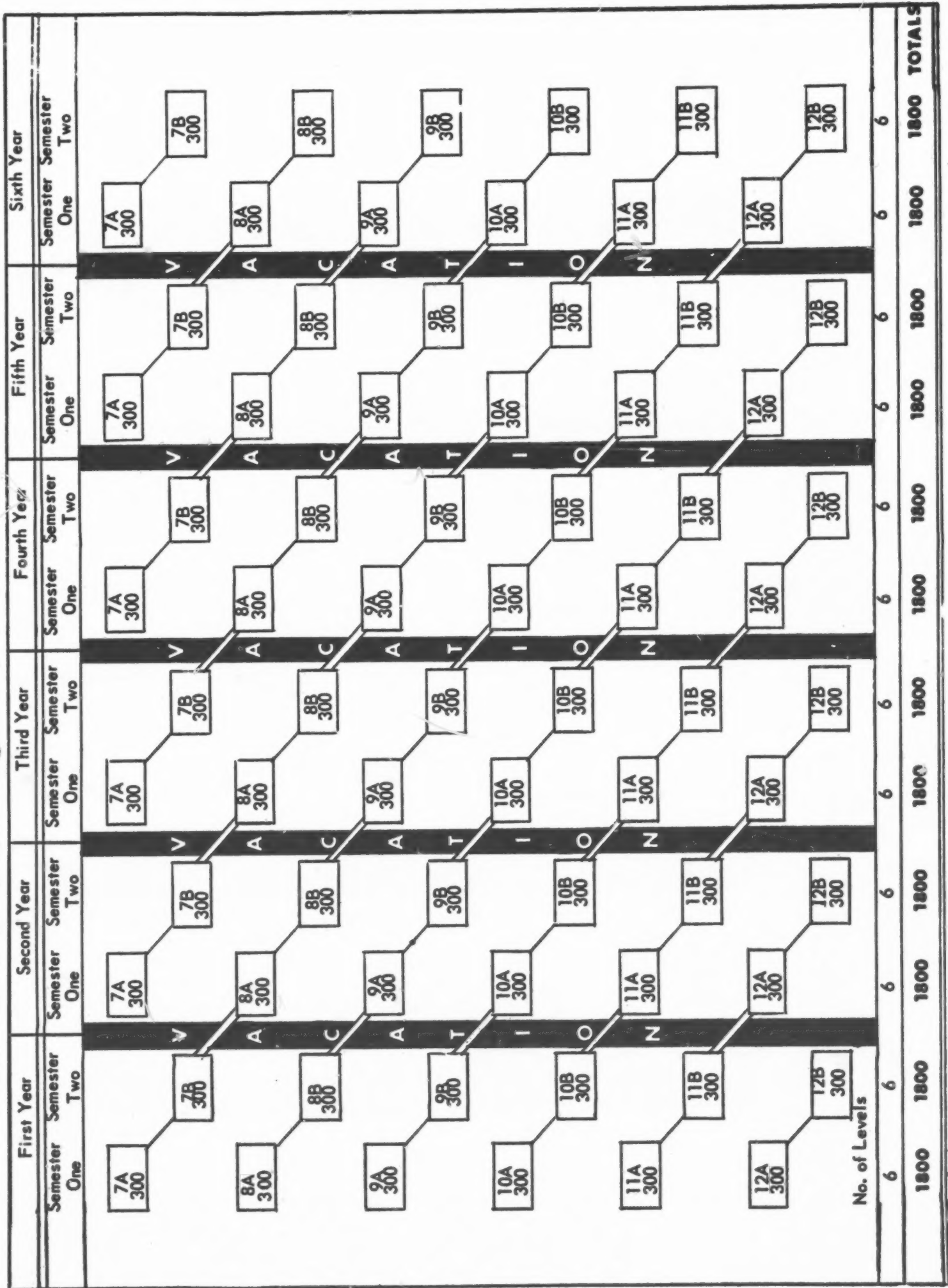
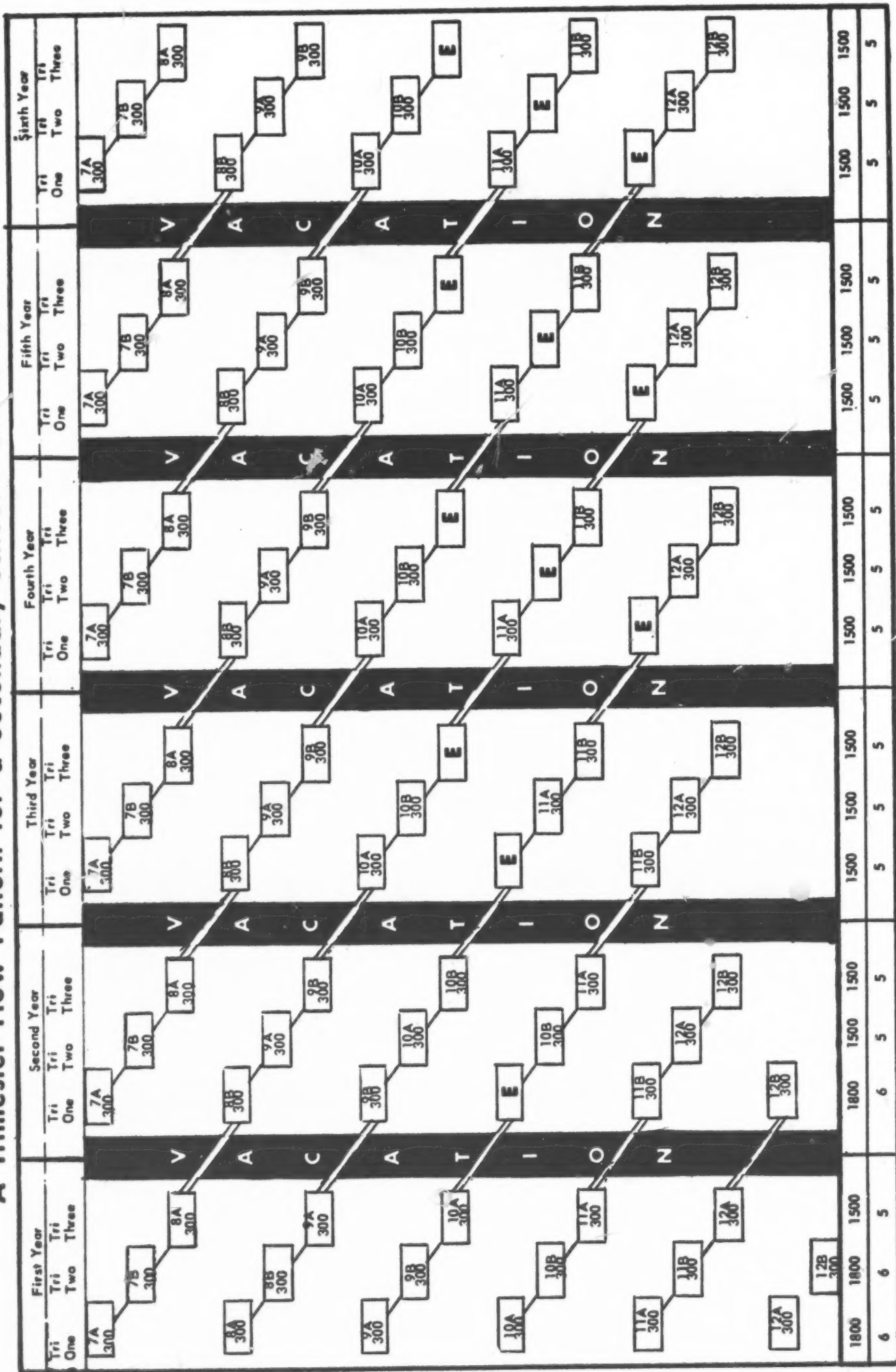


Figure 28
A Trimester Flow Pattern for a Secondary School - Grades 7 to 12



With planning, the use of automation for pupil scheduling plus a good in-service program, teachers and students can work cooperatively during the adjustment period without feeling that they are under pressure.

What Impact Will the Trimester Program Have Upon the Operating Expense Budget?

A district must be prepared to face an increase in the current expense budget for the first adjustment year. The increase will approximate 2.0 percent for a four year trimester plan and 3.0 percent for a six year trimester plan.

Since there is a definite reduction in the number of students to be educated by the end of the fourth trimester of all three trimester designs, the new program becomes self-sustaining in the second year. The reduction of pupil enrollments and the release of teachers and classrooms permits the second year to show a surplus in operating expenditure.

The graduation of the first trimester 12th grade in late March or early April can lead to some savings in the third term of the first year. However, small school systems may elect to use the reduced staff for non-teaching duties such as curriculum work for the remainder of their 10 month's contract. Cost projections in the following pages are based on this assumption. Therefore, they may be higher than will be the case in a given school system where there is considerable teacher attrition or a different basis for employing staff.

Teachers who continue to work through the extended year will receive extra compensation. In addition, the board of education must be prepared to increase its allowance for teacher retirement and other fringe benefits for that portion of the staff working beyond 180 days.

Is There a Difference in the Costs and/or Savings of a Three, Four, or Five Year Trimester Program?

Yes! Overall costs are less and savings in current expenditures are greater with the three year trimester than with four or five year trimesters.

Adjustment Year Costs for the Three Trimester Designs

All Extended School Year Plans result in an increase in operating expense until such time as it is possible to realize a saving due to the reduction in the size of the teaching staff. Though the length of the transition period is identical for the three, four, and five year trimester design, first year adjustment costs vary for each of the three designs, increasing in proportion to the number of grade levels that are included. Therefore, if money is the critical factor in instituting a new trimester program, preference should be given to the three year over the four or five year trimester plan.

Because the three plans involve different enrollments, the costs of the adjustment year increase in proportion to the number of teachers required for the students in the additional grades included in the three, four, and five year trimester plans. If one assumes that each secondary school class has an equal number of teachers, say 10 per class, the adjustment year costs for extra teacher salary, teacher retirement charges, and other fringe benefits will be based on the following proportions:

1. The three year trimester design applied to the four present grades (9 to 12) will require some extra service from 75 percent (30) of the secondary school staff (40).
2. The four year trimester design applied to five present grades (8 to 12) will require extra service from 80 percent (40) of the total secondary school staff (50).
3. The five year trimester design applied to six present grades (7 to 12) will require extra service from 83 percent (50) of the secondary school staff (60).

Since there is considerable attrition in the average high school, graduating classes tend to be smaller than those entering. This inequality in the size of secondary school classes will result in slightly higher projected costs if there is a corresponding difference in the size of the seventh, eighth, and ninth grade classes.

Illustration: Comparative First Year Adjustment Costs
for the Three Types of Trimester Programs
in a Representative School System

In order to show comparative costs of the three trimester designs in different school systems, enrollment projections and flow charts were prepared. The findings in one school system illustrates the financial advantage of the three year trimester design over the four and five year designs.

1. Comparative 1965 secondary school enrollments under the regular two semester organizational pattern:

<u>Grades 9-12</u>	<u>Grades 8-12</u>	<u>Grades 7-12</u>
20,130 pupils	25,078 pupils	30,275 pupils

2. Comparative 1965 secondary school enrollments in the third trimester of the first adjustment year for the three trimester designs. A trimester program will show an enrollment decrease of 4,208 pupils at the end of the second trimester of the first year. As a result, the projected enrollments for the three trimester designs will be as follows:

<u>Three Year Trimester</u>	<u>Four Year Trimester</u>	<u>Five Year Trimester</u>
<u>Grades 9-12</u> 15,922 pupils	<u>Grades 8-12</u> 20,870 pupils	<u>Grades 7-12</u> 26,067 pupils

3. Comparative size teaching staffs required in the third trimester for the three trimester designs

Based on the school district's teacher-pupil ratio of 1 teacher for every 20.15 pupils, 204 fewer teachers are required in the third trimester than for the regular school year. The comparative number of teachers will be:

Three Year Trimester	Four Year Trimester	Five Year Trimester
777 teachers	1,019 teachers	1,273 teachers

4. Comparative first year adjustment year costs for the three trimester designs

Three Year Trimester	Four Year Trimester	Five Year Trimester
\$578,013	\$758,038	\$946,990

The foregoing illustration shows how first year adjustment costs mount when more support teachers are added to a program. The five year trimester design requires payment of extra compensation and fringe benefits for the seventh and eighth grade teachers. There is no direct economic advantage in carrying these extra teachers, although there is an educational advantage which cannot be measured in terms of dollars and cents.

Based on the total operating expenditures of a previous year, the adjustment year costs of the three trimester programs would have led to the following approximate budgetary increases for the first adjustment year:

1. The 9 to 12 program would have increased the budget approximately 1.8 percent.
2. The 8 to 12 program would have increased the budget approximately 2.3 percent.
3. The 7 to 12 program would have increased the budget approximately 2.9 percent.

Potential Savings in Instructional Salaries After the First Adjustment Trimester Year

The three trimester plans become self-sustaining after the first year because fewer staff members are needed once the new trimester flow pattern goes into effect. Comparative salary costs of trimester and regular school programs show the five year trimester will cost approximately 6.0 percent less than the traditional program. The three year trimester will cost 17 percent less than the traditional program.

Illustration: Projecting Savings for a Representative School System for the Three Trimester Plans

Each of the the three trimester designs will show dollar savings in the instructional salary accruing after the first adjustment year. Since the permanent reduction in the school enrollments does not take place until the end of trimester four, the full impact of the reduction does not make itself evident until the third year. The projected dollar savings shown below are third year surplus figures.

The decrease of 4,516 in student enrollment and the saving of 172 classrooms and 220 teachers is identical in all three plans. The savings in salaries as a result of the reduction of these 220 teachers must help defray the salary costs and fringe benefits for teachers working the extra days in all the plans, with the varying numbers of teachers required. After these costs have been paid, the potential savings in current operating expenditures will be as follows:

Savings Grades 9-12	Savings Grades 8-12	Savings Grades 7-12
\$1,163,562	\$1,000,286	\$771,237

Based on the total current expenditures of a previous year, the potential savings in total current expense costs to a school system, after paying teacher salary and pension costs, will be as follows:

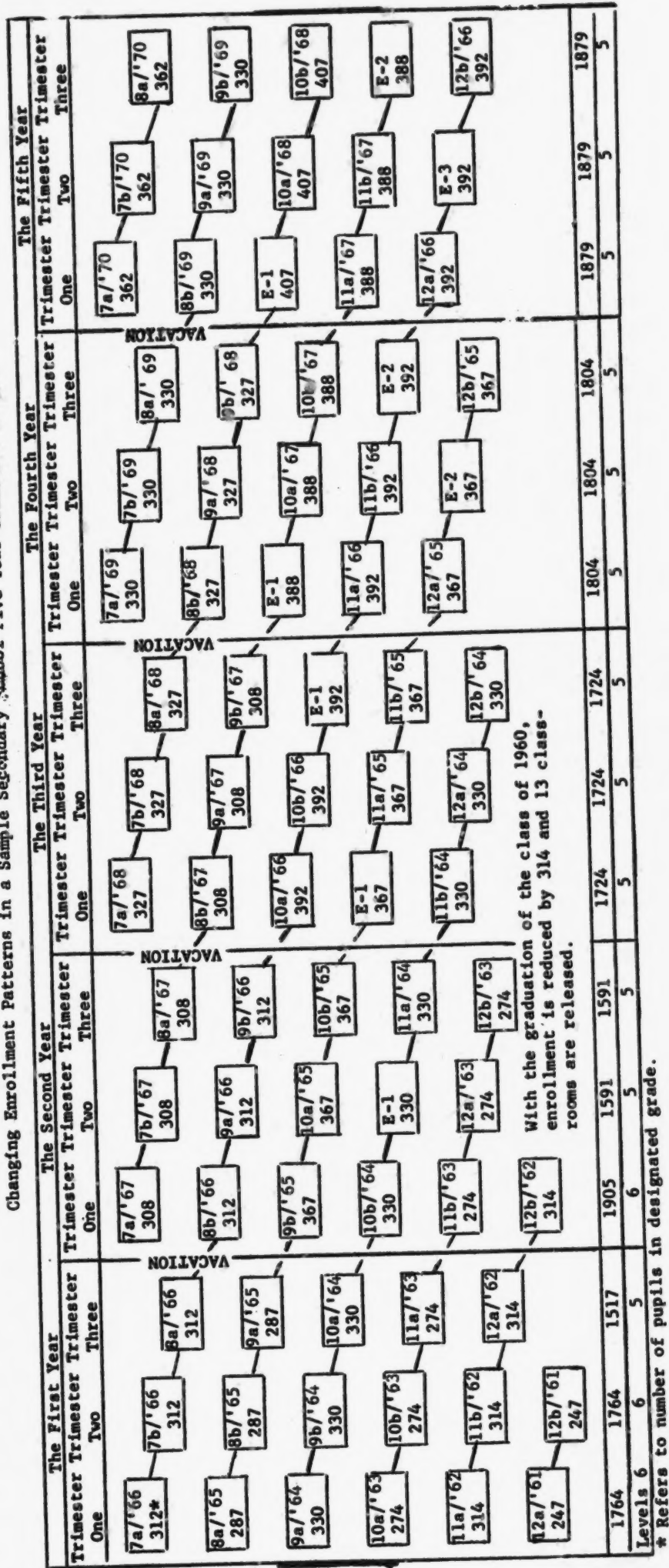
1. The 9 to 12 program will result in a 3.6 percent savings.
2. The 8 to 12 program will result in a 3.1 percent savings.
3. The 7 to 12 program will result in a 2.4 percent savings.

In terms of dollars and cents, the adoption of a five year trimester program will decrease the projected savings by approximately 63.8 percent, whereas the four year trimester will decrease the potential savings by approximately 31.1 percent.

How Long Will a School System Have To Wait To Get More Use From Its Classrooms?

The trimester design results in a permanent reduction of pupil enrollments at the end of the fourth trimester or one and one-third years after the program has begun.

Figure 29
Changing Enrollment Patterns in a Sample Secondary School Five Year Trimester Program



If space is required sooner, special adjustments can be made to accelerate the first 11th grade program through the adjustment trimesters. This can result in a release of the classrooms by the end of the second trimester of the first adjustment year.

How Many Classrooms Can a School System Count on Obtaining as a Result of the Trimester Program?

The school system can count on the release of all those classrooms and special facilities that are used by the students in the highest grade. Thus, if 10 12th grade classrooms are occupied by 260 students under the present two semester program, 10 classrooms will be released plus any other facilities used by the 12th grade pupils.

Figure 29 shows the flow pattern of an actual school system. Here, reduction of enrollments by 314 pupils results in a saving of 13 classroom. (Classroom ratio was 1 classroom for each 26 students.)

Reductions in the Number of Classrooms Required Will Be Reflected in Terms of a Potential Savings in Capital Outlay and Debt Service Charges

In many school districts, the release of classrooms due to the reduction in enrollments will eliminate the need to build additional school facilities. When this occurs, direct savings will be realized in capital outlay and debt service charges. A survey of New York State school construction costs shows the school districts spend \$40,000 to \$45,000 per classroom for new elementary school buildings and \$50,000 to \$55,000 per classroom for secondary school buildings. These figures may be even higher for school districts in the metropolitan New York City area due to high site acquisition costs and higher labor costs. On the basis of such costs, a school system that obtains the release of 10 classrooms through the adoption of a trimester plan of school organization would save the equivalent of \$550,000 in capital outlay.*

In addition, the community would save the equivalent of \$18,700 annually in debt service charges based on a 3.4 percent interest rate if it does not have to construct a new school or build an addition to older existing structures.

Such figures may not look impressive to school administrators who work with multimillion dollar school budgets, but the totals become significant when the cumulative dollar savings are shown for several school districts.

*Since a high school contains many special instructional areas other than classrooms, school construction costs are frequently calculated on a per pupil basis. In this case, all projected capital outlay costs will be increased because the State average of \$2,686.21 will result in higher total costs than shown. For example, per pupil cost calculations show a potential saving of \$843,500 instead of \$550,000.

Reductions in the Number of Classrooms Required
Will Lead to Financial Savings Due to Reduced
Operating Costs

People who study the impact of a lengthened school year program on the school budget frequently ignore or overlook the financial savings accruing to a community when it obtains badly needed classroom space without having to build new schools or additions to old ones. The difference in operating the present school plant or one with a reduced enrollment compared to the cost of operating an enlarged school plant can be substantial. The actual projected savings in operating costs may equal or exceed the savings in capital outlay and debt service.

Illustration: Categories Where Money Could Be Saved if
the Reduction in School Enrollments Eliminates
the Need to Build Additional School Facilities

- Assumption #1 The adoption of an extended school year program in one school system will lead to a 1,200 pupil reduction in school enrollment. This frees 44 to 50 classrooms and other special facilities and eliminates the need to build a \$3,000,000 school.*
- Assumption #2 By not building a \$3,000,000 school, the school district saves the costs of operating and maintaining facilities for 1,200 pupils. For example, it is no longer necessary to employ a new principal, an assistant principal, clerical workers, a nurse, extra custodians, cafeteria workers, and other professional and nonprofessional employees. Fixed costs such as insurance are not increased, nor is it necessary to provide for increased heat, light, power and telephone service. Provisions do not have to be made for daily care and long-range maintenance of an expanded school plant.
- Assumption #3 The following items, based on present average pupil expenditure costs, may be considered as contributing to the savings effected through the adoption of an extended school year program.

*Based on a cost of approximately \$2,600 per pupil.

Figure 30

**Areas Where Savings May be Expected with the Elimination
of the Need to Construct a 1,200 Pupil High School**

Item	Present Per Pupil Cost	Potential Saving for 1,200 Pupils
Projected Savings in Operation of Plant		
Wages of janitors	\$39.41	\$47,292.00
Fuel	8.58	10,296.00
Water	1.01	1,212.00
Light and power	6.92	8,304.00
Janitor supplies	1.97	2,364.00
Services other than personnel	1.30	1,560.00
Other expense of operation	.45	540.00
Total operation of plant		<u>\$71,568.00</u>
Projected Savings in Maintenance of Plant		
Upkeep of grounds	\$ 5.75	\$ 6,900.00
Repair of buildings	15.48	18,576.00
Heating etc. repair	10.55	12,660.00
Instr. equipment repair	3.02	3,624.00
Furniture repair	2.15	2,580.00
Other expenses of maintenance	2.60	3,120.00
Total plant maintenance		<u>\$47,460.00</u>
Projected Savings in Fixed Charges (selected items)		
Fire insurance	\$.69	\$ 828.00
Other insurance	5.39	8,400.00
Total Fixed Charges		<u>\$ 9,228.00</u>
Potential Savings in Instructional Services		
Principal's salaries	*	\$14,400.00
Asst. principal's salaries	*	12,000.00
Clerical salaries	\$ 9.06	10,872.00
Principal's office expense	.42	504.00
Substitutes' salaries	8.71	10,452.00
Textbooks	4.87	5,844.00
Instructional supplies	8.40	10,080.00
Other expenses	1.06	1,272.00
Total instructional services		<u>\$65,424.00</u>
Projected Savings in Auxiliary Agencies		
Library salaries	\$ 7.16	\$ 8,592.00
Other exp. for libraries	1.96	2,350.00
Psychological services	1.73	2,076.00
Medical inspection	1.41	1,692.00
Nurse service	6.18	7,416.00
Dental service	2.05	2,460.00
Other health expenses	.37	444.00
Pupil transportation	2.71	3,252.00
Cafeteria	1.17	1,404.00
Recreation	.60	720.00
Other auxiliary agencies exp.	2.25	2,700.00
Total auxiliary agencies		<u>\$33,106.00</u>
Total Operating Costs		\$226,786.00
*Based on employment costs of one principal and one assistant principal		

More Property Can Be Kept on the Tax Rolls
When a Reduction in Pupil Enrollments Leads
to a Curtailment of School Expansion

The local community has a windfall when a school reorganization leads to a reduced school enrollment and the curtailment of school expansion. Modern schools require land for parking and recreation as well as for school plant itself. In rural areas where land costs are low, the retention of this acreage on the tax rolls may be inconsequential, but in a city where land costs are high, the savings can be significant.

The Potential Impact of an Extended School
Year Program Upon the Secondary Schools
of New York State

A study was made to show the potential impact of a trimester or quad-rimester program upon the secondary schools of New York State. While the data used to calculate ratios and costs were derived from reports submitted by the local school districts, the projections should still be considered as subjective. This is especially true for the savings in classrooms since the pupil-classroom ratio is distorted by the number of secondary school plants which operated on a multiple session basis. Thus, the ratio of 26.4 pupils per classroom will show a lower savings in terms of space than the upstate average of 23.2. Again, a number of variables must be controlled before any final conclusions can be drawn. However, the projected enrollment for the extended school year and the regular school year sets the stage for future action.

A comparison of the number of students housed and educated under the present two semester system and under a trimester system shows a reduction in the total secondary school enrollment lies in the offing with new extended school year programs. This reduction becomes the basis for the release of classrooms and teachers that leads to projected savings.

1. The Reduction in Secondary School Enrollment

Year	Enrollments in gr. 7-12 under the two semester organizational plan	Enrollments in gr. 7-12 under the trimester organizational plan	Reduction in student enrollment
1st yr.	1,336,157	1,336,157 to 1,154,075	0 to 182,082
2nd yr.	1,375,490	1,180,967	194,523
3rd yr.	1,409,099	1,211,057	198,042

The estimated saving in classroom space is based on the use of 26.4 pupils per classroom. Since this ratio has been considered high, there is justification for the substitution of a lower figure. This would result in the potential release of additional classroom space and a corresponding increase in monetary saving.

2. Projected Savings in Secondary School Classrooms Based
on a State Ratio of 26.4 Pupils to a Classroom

Year	Number of classrooms required under two semester system	Number of classrooms required under the trimester plan	Number of class- rooms saved with trimester plan
1st yr.	50,612	50,612 to 43,715	0 to 6,907
2nd yr.	52,102	44,734	7,368
3rd yr.	53,375	45,873	7,502

Based on the average New York State secondary school construction costs of \$2,686.21* per pupil the release of classroom space and other special facilities for approximately 200,000 pupils is equivalent to a reduction in capital outlay costs of \$537,242,000. If these costs are spread over a 25 to 30 year period, the annual savings in capital outlay will approximate \$18,000,000 to \$21,500,000. At the same time state and local governing agencies will save \$237,575,000 in interest charges in a 25 year period. This is equal to an annual saving of \$9,500,000.

The reduction in secondary school enrollments should be reflected in a parallel reduction in the size of the secondary school teaching staff. The savings in salaries for these teachers will provide funds needed to compensate the reduced staff for its extra period of service. In addition to paying the salary increases and related pension and fringe benefit costs, there should be a potential surplus of approximately \$40,000,000 annually (after the transition period) in the instructional salaries account. This may help defray the cost of bringing new classes into the new lengthened school year program or to reduce class sizes once extra space is made available.

3. Projected Reduction in Teachers Based on a State
Average of 19.4 Pupils Per Teacher

Year	Number of classroom teachers required under two semester system	Number of classroom teachers required under the trimester plan	Number of classroom teachers saved with the trimester plan
1st yr.	68,874	68,874 to 59,488	0 to 9,386
2nd yr.	70,902	60,875	10,027
3rd yr.	72,634	62,426	10,208

*Secondary school construction cost figures include incidental costs. They are based on figures released by the New York State Department of Labor.

** Since the average teacher costs local boards of education somewhat more than \$10,000 a year, the potential reduction of 10,200 teachers will provide \$100,000,000 or more to support the extra cost of a lengthened school year. (Average salary \$8,000 + 18.4% for teacher retirement + \$277.20 for social security, plus other fringe benefits.)

The potential release of approximately 10,200 secondary school teachers will have an impact upon the educational structure of the state which defies categorizing in terms of dollars and cents. At present, there is a shortage of qualified teachers, therefore the release of these teachers can go a long way towards reducing class size or the replacement of unqualified staff members. Educationally thousands of children should gain by the shift in teacher supply and demand.

On the assumption that new school facilities for some 200,000 pupils would not need to be built, it is possible to show a further saving of \$44,000,000 in projected operating and maintenance costs. This figure can vary according to the nature of the categories included in the cost calculations. For example, it has been assumed that new schools will require additional principals, clerks, cafeteria workers, janitors, and many special professional and nonprofessional employees in addition to regular classroom teachers. The \$44,000,000 figure provides for these extra employees with the exception of classroom teachers. Again, no allowance was made for increased pension or retirement costs for the new staff in anticipation that some leeway may be necessary to account for the failure of school systems to maintain the status quo.

**A Summary of Potential Savings for New York State
Based on the Savings of One Year in Six***

Area of saving	Anticipated savings per year
1. Potential savings due to the release of teachers	
(a) Teacher salaries and retirement costs	\$ 41,000,000
2. Potential savings based on release of classrooms and subsequent elimination of need for new school facilities	
(a) Capital expense and debt service	
(1) Interest on debt	9,500,000
(2) Payment on principal	21,500,000
(b) Related operating expense	44,000,000
(c) Return to taxpayers due to retention of land and property on the tax rolls	no figures available
Total potential savings	\$116,000,000

*These figures can be refined to show a more exact total. However, it must be remembered that projected savings in capital outlay, debt service, and operating costs will not occur in school systems which cannot use the school facilities released due to the decreased pupil enrollment.

The summary showing projected savings for a trimester plan has been based on the assumption that most school systems would elect to reorganize their schools in an attempt to save one year out of six. This would mean that they would forego a portion of the dollar savings to gain the advantage of the three "E" terms. If, however, the school systems were to be reorganized in terms of design #1 that calls for a saving of one year out of four, the adjustment year costs would be less and the ultimate savings more. For example:

Potential savings in teacher salaries with Design #3	\$41,000,000
Potential savings in teacher salaries with Design #1	66,500,000
Additional savings in teacher salaries with Design #1	\$25,500,000

Both plans are based on a reduced need for approximately 10,200 teachers, but part of the difference in savings is due to the employment of more teachers for a longer school year with design #3 than with design #1.

In either case the projected savings due to the release of classrooms will remain the same. Therefore, the potential total savings for design #1 could approximate \$140,400,000 annually instead of \$116,000,000.

These projected dollar savings will go a long way towards providing more as well as better education for all children in the New York State without immediately creating new burdens for the taxpayer.

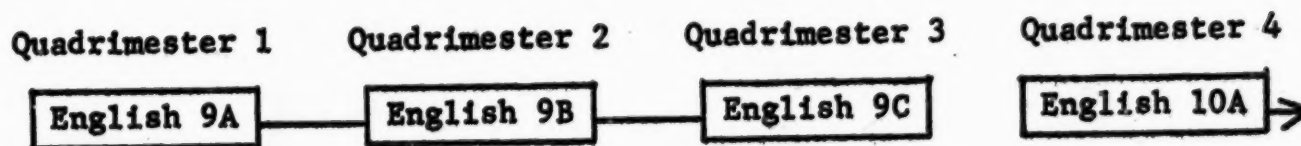
Part IV

The Nature of the Quadrimester Plan

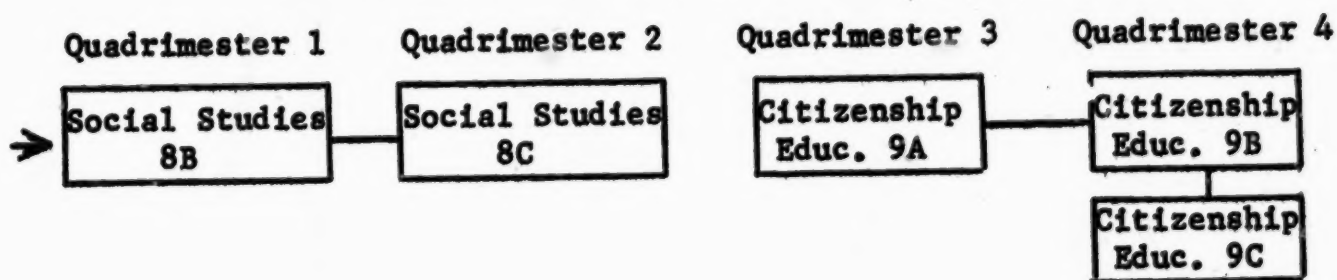
The Quadrimester Plan is based upon the division of a longer school year into four equal quarters or quadrimeters. Average and better-than-average learners can complete the equivalent of a normal 180 day course in three quadrimesters. This is done through a lengthening of class periods to equalize instructional time.

The quadrimester program differs from most four quarter programs in that pupils are not given the choice of working through three quarters and then having an extended vacation. Each pupil is expected to continue through school for the full 204 to 220 days. If he completes a course at the end of the second or third quadrimester, the school must be prepared to offer new courses which will meet his educational needs. For example:

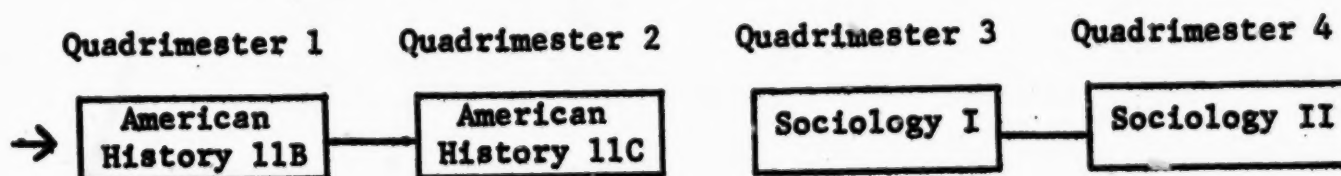
1. Pupils completing a course at the end of the third quadrimester begin new courses in the fourth quadrimester which carry over into the next school year.



2. Pupils completing a course at the end of the second quadrimester begin a new course in the third quadrimester. It may be completed in the first quadrimester of the following year or it may be completed during the same calendar year through double period scheduling for one or both of the ensuing quadrimester.



3. Pupils may elect new courses which have been prepared as one or two quadrimester courses.



4. Pupils who work slowly may receive more instructional time through taking courses which have been broken up into shorter learning units or segments, to allow pupils to progress at a slower pace. Through the use

of the "E" terms it is possible to offer such courses in four quadrimesters instead of three. (World History, Biology, Chemistry, etc.)

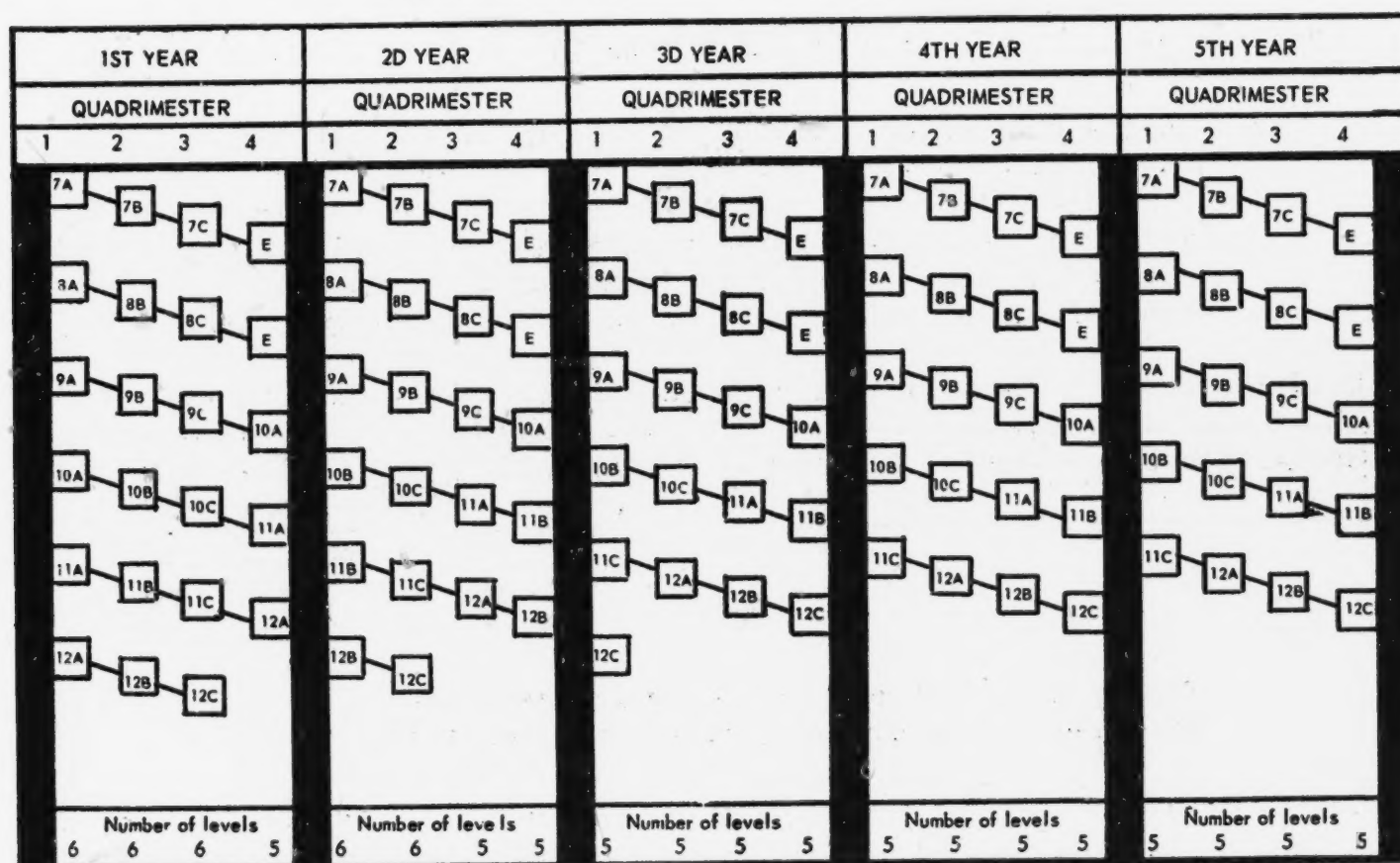
Quadrimester 1	Quadrimester 2	Quadrimester 3	Quadrimester 4
<u>Chemistry 11A</u>	<u>Chemistry 11B</u>	<u>Chemistry 11C</u>	<u>Chemistry 11D</u>

The quadrimester plan has been developed for secondary schools (see figure 31), but it lends itself to an elementary school organizational pattern even more readily than the trimester design. In either case, the concept of continuous progress will help pupils and teachers adjust to the new time elements found in lengthened school year programs. This will be especially true where there is a relationship between the skills and concepts introduced at different learning levels.

The term quadrimester has been used to distinguish the recommended organizational plan from a number of "All Year Round Plans" which divide the year into four time blocks.

Figure 31

Student Flow Pattern in a Five Year Quadrimester Plan



One "All Year Round Plan" calls for the division of the school year into four quarters with one-fourth of the students on vacation during the fall; another fourth out of school for the winter term, and the remaining students out during either the spring or summer terms. The quadrimester plan, on the other hand, provides for continued

education for an extended school year with one summer vacation for the entire school. It has no relationship to the All Year Round Plan which is based upon a system of mandatory, staggered vacations.

The quadrimester plan provides all pupils with a 4 to 7 week summer vacation.

The Nature of a Consecutive Quadrimester Calendar

The quadrimester calendar calls for the division of an extended school year into four equal segments ranging from 51 to 55 days in length. The ideal calendar would give pupils and teachers a week's recess at the end of the first, second, and third quarters.

In order to preserve traditional holiday recesses plus a longer summer vacation, educators favor a school calendar similar to the one shown in figure 32 with 51-54 quarters.

This quadrimester calendar provides for a 212 day school year. The length of the school year could be shortened by a week if the quarters are cut back to 51-52 days.

The Flow Pattern in a Five Year Secondary School Quadrimester Design

The five year quadrimester design refers to an extended school year plan which will enable students to complete six full years of schooling in five lengthened school years. In addition, the students have the advantage of two "E" terms to help them pace their instruction and to engage in enriching or broadening activities.

Figure 31 shows the flow pattern of the five year quadrimester design. In studying this figure, the observer is reminded that pupils in grades 8 to 12 are in a transition period. Therefore, they do not have the advantages of the "E" terms shown for the first class to complete the full five year quadrimester program.

The consecutive quadrimester design is illustrated in figures 31 and 33. One can follow the progress of a class through five extended school years to see what happens to the students.

- (a) The first class to complete the full six year sequence in five years is the one which start in the upper left-hand corner. One can follow this class of students as it progresses in a diagonal across the flow chart. The 7A section becomes the 7B section, then the 7C, until after five extended years of schooling the pupils reach 12C (the box in the lower right-hand corner). These pupils will be able to complete six years of schooling in five years, and have the equivalent of two "E" terms to enrich or broaden their curriculum.

Figure 32

A Sample Calendar for a Consecutive Quadrimester for 1966-67*

School Calendar Variation No. 5

Month	Day	Legend	Days of Schooling
<u>Quadrimester I</u>			
September	1	School Open for Students	
September	5	No School - Labor Day	21
October	3	No School - Teachers Conference	20
November	11	No School - Veterans Day	
November	17	Last Day of School in Quadrimester I	<u>12</u>
		No. of School Days in Quadrimester I	53
<u>Quadrimester II</u>			
November	18	First Day of Quadrimester II	
November	24-25	No School - Thanksgiving Recess	7
December	23	Last Day of School Before Start of Christmas Recess	17
December	24-	Christmas Recess	
January	1		
January	2	School Reopens After Christmas Recess	22
February	10	Last Day of School in Quadrimester II	<u>8</u>
		No. of School Days in Quadrimester II	54
<u>Quadrimester III</u>			
February	13	First Day of Quadrimester III	
February	22	No School - Washington's Birthday	11
March	24	No School - Good Friday	22
April	28	Last Day of School in Trimester III	20
April	29-	No School - Spring Recess	
May	7		
		No. of School Days in Quadrimester III	53
<u>Quadrimester IV</u>			
May	8	First Day of Quadrimester IV	
May	30	No School - Memorial Day	17
June			22
July	3-4	No School - Independence Day Recess	
July	21	Last Day of School in Quadrimester IV	<u>13</u>
		No. of School Days in Quadrimester IV	<u>52</u>
		Total No. of School Days in 1966-67	212

*Recommended Quadrimester Calendars may provide a week's vacation between each quarter, to give teachers and students an essential break between work periods.

- (b) The first eighth grade class to start in the quadrimester program will not go through the full flow pattern. As a result, pupils in this class have one "E" term to broaden or enrich their program as they go through their four lengthened school years. This class will complete five years of schooling in four school years or 16 quadrimesters.
- (c) The first 9th, 10th, 11th, and 12th grade classes are adjustment classes. They obtain the regular instructional time, but will not have the advantage of "E" terms unless the local school system elects to eliminate some of the current expense saving for the first two years. In this case, the 11th and 12th grade pupils can work through a longer school year with the additional time being used as the pupils see fit.

Figure 33 shows a flow chart which has the 11th and 12th grades remaining in the traditional two semester program, while the other four grades are going through the new quadrimester program. This is a less expensive program to start with than one which has pupils going through three quadrimesters, and much less expensive than a program which has them going through three regular quadrimesters plus an "E" term during each school year.

Figure 33

Flow of Students Through a Transitional Quadrimester Program (Grades 7 to 12)

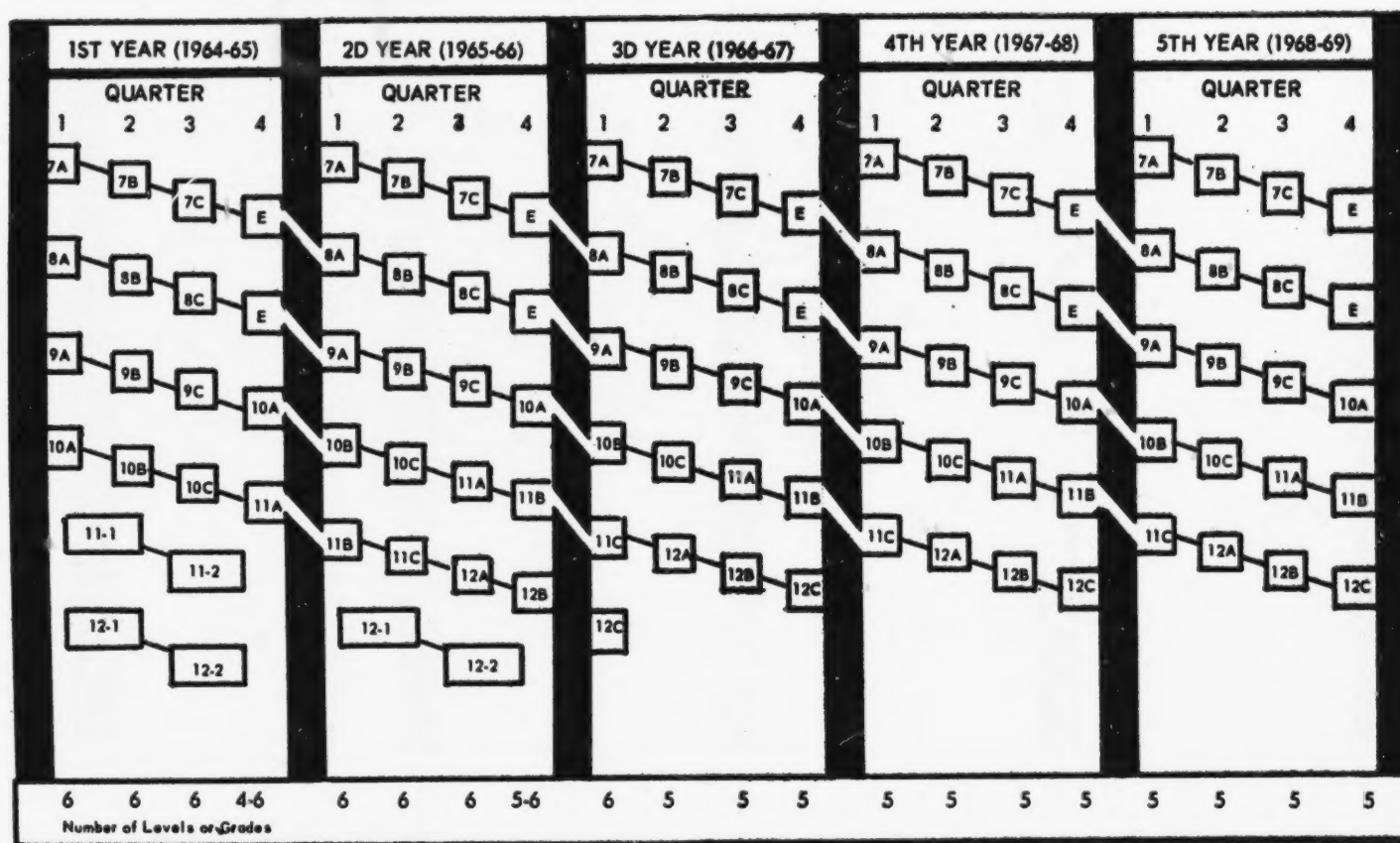


Figure 32 shows six student levels in each of the first three quadrimesters, but there are only five levels or grades to be educated in the fourth quadrimester due to the early 12th grade graduation. With the input of a new 7A class, the school starts with six levels. The graduation

of the second 12th grade class at the end of the second quadrimester results in a temporary reduction in enrollment and staff at the end of quadrimester six. The new organization takes over completely at the end of the ninth quadrimester, with the result that the school has only five grades or levels to be educated during subsequent terms.

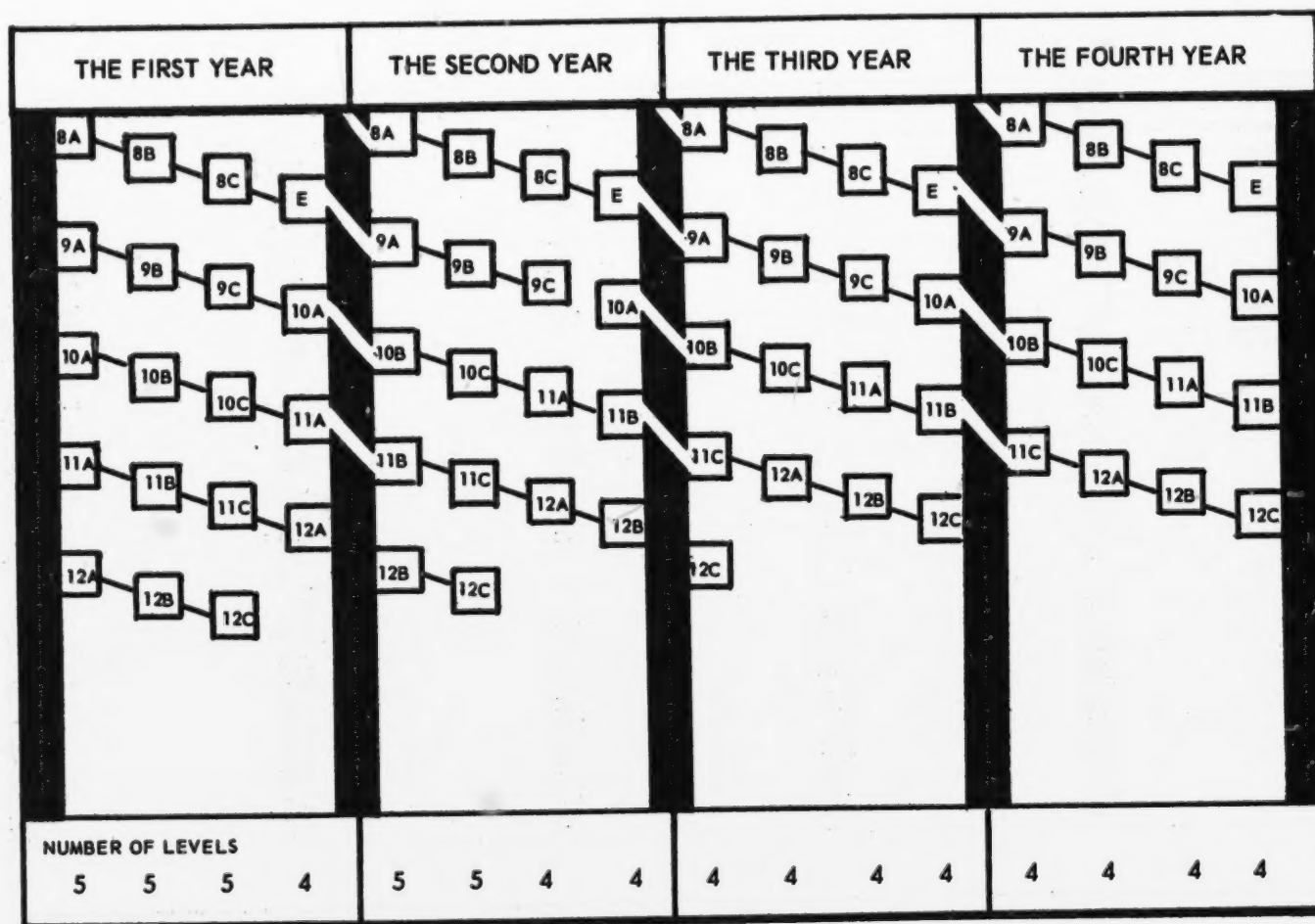
What Is Meant by the Four Year Quadrimester Design?

The four year quadrimester design is a variation which enables average or better-than-average students to complete five full years of schooling in four lengthened school years.

One can follow the progress of the first eighth grade class in the flow chart depicted in figure 34. The pupils in the 8A class move diagonally across the chart until they graduate (12C) at the end of the fourth extended school year. They complete five full years of secondary school courses in 4 calendar years and have the advantage of one "E" term to help pace their progress or to take enrichment or broadening activities.

Figure 34

The Four Year Quadrimester Flow Pattern



The reduction in school enrollment takes place at the end of the ninth quadrimester. At this time, the new flow pattern becomes permanent and the five level school reduces to four levels.

What Is Meant by the Three Year Quadrimester Design?

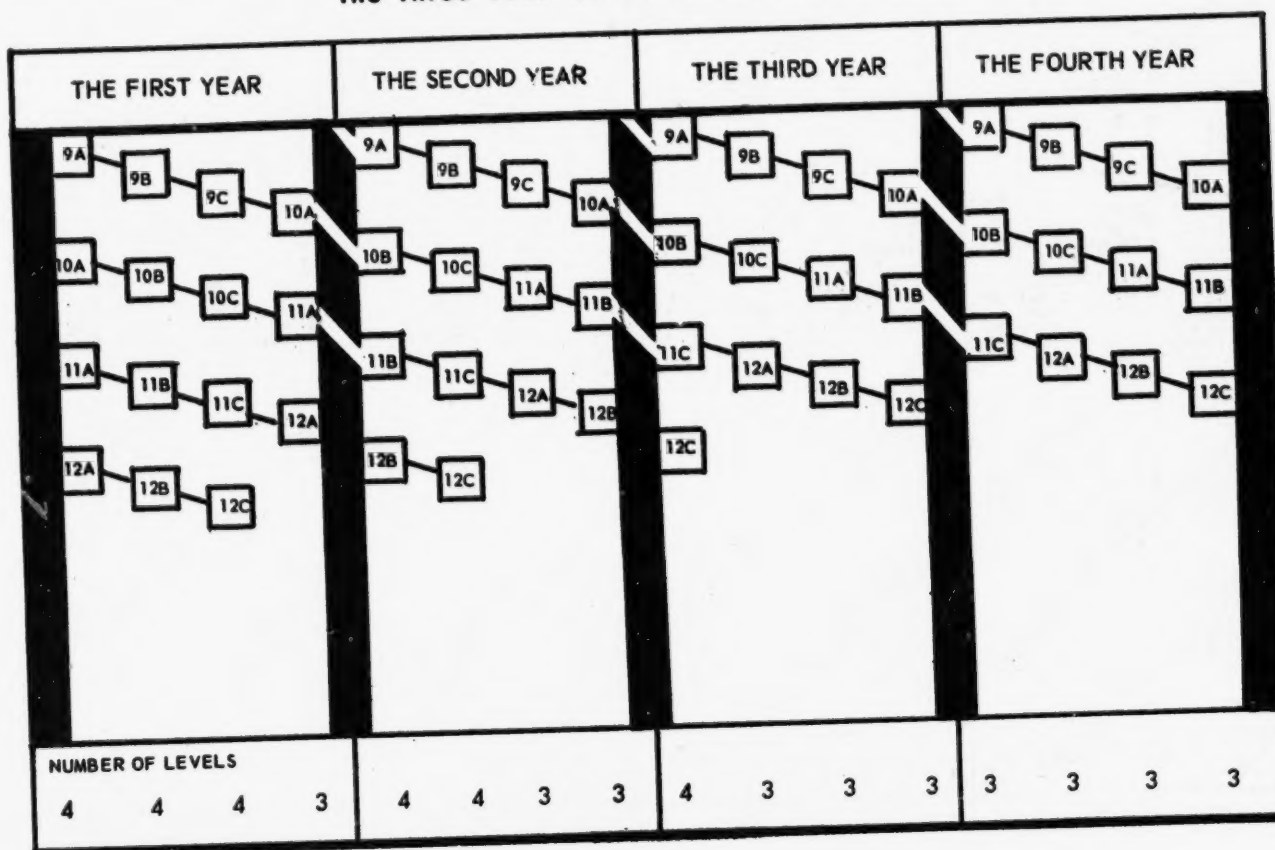
The three year quadrimester design will enable students to complete four full years of schooling in three lengthened school years.

Figure 35 depicts the progress of the first ninth grade class. The pupils in the 9A class move diagonally across the chart until they graduate (12C) at the end of the third extended school year. In this design, the students lack the advantage of an "E" term. Therefore, they have less opportunity to take enrichment or broadening courses. Students who fail subjects must take extra courses or work through one or more additional quadrimesters.

The permanent reduction in school enrollment takes place at the end of the ninth quadrimester, when the four level school reduces to three levels.

Figure 35

The Three Year Quadrimester Flow Pattern



An Elementary School Quadrimester Design

An elementary school can operate effectively without semester, trimester, or quadrimester divisions. However, teachers and school administrators find the quadrimester design helpful. It provides them with guideposts and possible transfer points. A design such as that in figure 36 helps one to see what a quadrimester pattern means to boys and girls in an elementary school.

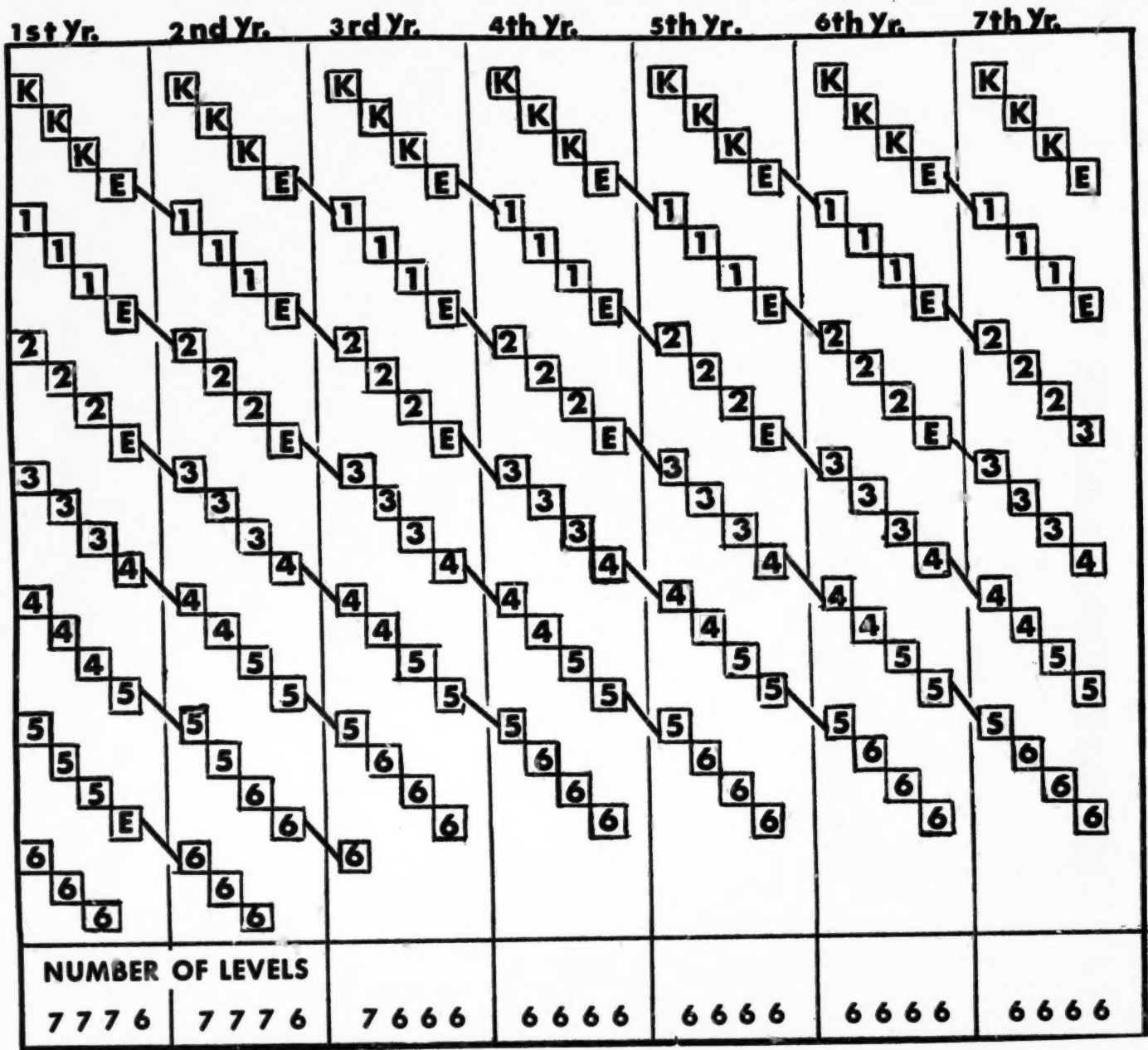
If one follows the progress of the kindergarten class, shown in the upper left-hand corner of the figure, as it goes to first, then to second and ultimately to the sixth grade, it becomes apparent that the students can complete the seven year elementary school program in the six extended

school years. In addition, pupils have the equivalent of three "E" terms to help them over "hard spots," or to enrich and broaden their educational background before they move into the secondary school.

The potential reduction in school enrollment takes place at the end of the ninth quadrimester, when the seven levels reduce to six levels permanently.

Figure 36

ELEMENTARY SCHOOL QUADRIMESTER FLOW PATTERN



During the adjustment period, the first 1st grade class completes six years of elementary schooling in five years. In addition, the pupils have the advantage of two "E" terms. The first second grade class completes five years of work in four lengthened years. The pupils also have the advantage of one "E" term. Ordinarily, the students in the succeeding years work through quadrimesters without the advantage of an "E" term, but an exception was made for the fifth grade class shown in the first column of figure 36. This class has been given the advantage of one "E" term. These pupils could have been given a second "E" term without upsetting the start of the flow pattern. By the same token, the pupils in the first

sixth grade class could have been given the advantage of an "E" term. However, the inclusion of one or more "E" terms for the first third and fourth grade classes would defer the release of classrooms beyond the two and one-fourth year adjustment period.

How Long Are Class Periods in a Quadrimester Design?

A small adjustment in the length of the class period is necessary if one wants to equalize time with that of the regular two semester year. The following time adjustments are recommended:

<u>Length of year</u>	<u>Length of quarter</u>	<u>Recommended length of period</u>	<u>Potential Increase</u>
220 Days	55 Days	49 Minutes	4 Minutes
216 Days	54 Days	50 Minutes	5 Minutes
212 Days	53 Days	51 Minutes	6 Minutes
208 Days	52 Days	52 Minutes	7 Minutes
204 Days	51 Days	53 Minutes	8 Minutes

Class periods may be shortened or lengthened since local school systems provide less or more instructional time than the 45 minutes used to equalize time in this chart. Shorter class periods are possible where the present average class period is 40 minutes.

Does the School Day Have To Be Lengthened?

The quadrimester program need not lead to a lengthening of the school day. Two alternates are recommended:

1. The number of class periods may be reduced from eight to seven or from seven to six.
2. A modification of luncheon arrangements, home-room plans, passing time, and/or activity periods may provide the extra time needed to avoid the lengthening of the school day.

Should neither of the suggested alternatives be acceptable, it will be necessary to lengthen the school day by approximately 28 to 42 minutes.

Will Students Still Have the Advantage of the "E" Terms in the Quadrimester Program?

Though fewer than in the trimester plan, "E" terms are an essential part of the quadrimester plan. Figure 27 shows comparative number of "E" terms available in different quadrimester plans of school organization.

Figure 37

Number of "E" Terms Available in Different
Quadrimester Organizational Plans

Number of grades in design	Number of "E" terms quadrimester plan	Number of "E" terms trimester plan
4 Grades	0	1
5 Grades	1	2
6 Grades	2	3
7 Grades	3	4

What Impact Will the Quadrimester Plan
Have Upon the Current Expense Budgets?

1. First Adjustment Year Costs

An increase in the current expense budget can be expected for the first adjustment year. These costs will be about the same as those shown for the trimester adjustment year. Thus, an increase of 2.0 percent may be expected for the three year quadrimester plan and 3.0 percent for the five year quadrimester plan. The foregoing anticipated increase is due largely to additional teacher salary and pension costs for an 11th month service. The projected increase may be calculated in two ways:

- (a) One calendar has the third quadrimester ending on April 9 with school resuming for a reduced enrollment on April 19. If the full teaching staff is not employed for the fourth quadrimester, there will be a decrease in salary costs. This will help defray the extra salary costs for an 11th month's service on the part of the remaining
- (b) Small school systems may elect to employ the entire staff for the full 10 months. The extra teachers can be used as relief teachers or they may work on curriculum and special projects for 5 or 6 weeks. These teachers are not employed beyond their normal 10 month contract year. Extra current expense costs, therefore, are based on compensation and fringe benefits paid out for the teachers who have extended their year to 11 months. This approach is slightly more expensive than the preceding one. This is the plan used to calculate trimester and quadrimester costs because it provides some leeway for unexpected costs or costs not listed.

2. Current Expense Costs and Savings in the Second
Year of Quadrimester Operation

Second year adjustment year costs for a quadrimester plan will be somewhat lower than those shown for the first year

due to an earlier temporary reduction in student enrollment. However, more money will be spent for the quadrimester program than would be spent for comparable trimester programs.

Since there are differences in the cost of operating schools under the five year, four year, and three year quadrimester designs, due to the difference in the number of teachers working for the new lengthened school year, a school board with limited financial resources may find it advisable to begin with a limited quadrimester program. Preliminary cost studies of the impact of the proposed extended school year show:

- (a) Second adjustment year costs for the five year quadrimester program will exceed those of the regular school year program, but the extra cost will be less than those incurred in the first adjustment year.
- (b) Second adjustment year costs for the four year quadrimester will approach the break-even point in the second year. In many school systems the four year program can be considered as self-sustaining after the first adjustment year.
- (c) Second adjustment year costs for a three year quadrimester program show a definite saving in the second year. This program, like that of the trimester, is completely self-sustaining after one year of operation.

Illustration: A Comparison of Second Year Adjustment Costs for a School System

Total Allocation for Teachers' Salaries, Retirement Charges, and Social Security Contributions

Type of design	Regular school year costs	Quadrimester plan costs	Trimester plan costs
5 year	\$12,126,081	\$12,257,454	\$11,361,234
4 year	10,048,252	10,076,396	9,080,076
3 year	8,051,588	7,784,246	6,888,026

3. Savings in Current Expense in the Third Adjustment Year

During the third year of quadrimester operations, a savings in current expense can be expected from each of the three quadrimester designs. In each instance, the cost of operating the quadrimester program will be higher than those shown for the regular program. A comparison of quadrimester and trimester costs in the third year show:

- (a) The savings will be identical if steps are taken which will lead to the establishment of a new quadrimester flow pattern at the end of the eighth term instead of the ninth.
- (b) The difference, if any, in the costs will be due to the need to provide extra teacher coverage for one grade for approximately 2 months.

4. Savings in Current Expenses After the Transition Period

A comparison of the current expense costs of trimester, quadrimester, and two semester school year programs shows the extended school year plans are less expensive after the transition period has ended than the traditional 180 day program.

- (a) The current expenditures for a six year two semester program will be approximately 6 percent higher than the total current expenditures for a five year quadrimester program.
- (b) The current expenditures for a four year two semester program will be approximately 17 percent higher than the total current expenditures for a three year quadrimester program.
- (c) Further savings will be realized from the quadrimester program in capital outlay, debt service, and operating costs.

How Long Will a School System Have To Wait To Obtain Badly Needed Classrooms if the Schools Are Organized on a Quadrimester Pattern?

Each quadrimester program will lead to a reduction in pupil enrollments by the end of the first term of the third year. Consequently, a permanent reduction in the number of teachers and classrooms can be counted on in two and one-fourth years.

Should space be badly needed, steps can be taken to accelerate the graduation of the first 10th grade class so most pupils can graduate at the end of the second adjustment year. If this is done, classrooms will be released permanently at the end of one and one-half extended school years.

It should be noted that a quadrimester program which is introduced in the elementary school will reduce the number of classes or levels at the end of two and one-fourth years. However, the school system cannot obtain extra classrooms at this time unless:

1. There is space for the extra wave of new seventh grade pupils or

2. Secondary school classes have been involved in an extended school year program for a period long enough to free the rooms of one graduation class for the new seventh grade entrants.

How Many Classrooms Can Be Saved With the Quadrimester Design?

Under the quadrimester program, the same number of classrooms is saved as under the trimester program. In both designs, the number of classrooms saved is in proportion to the number of pupils in the highest class of the school. The graduation of this class (the 12th grade in the secondary school) releases the classrooms and special facilities ordinarily assigned to it.

Figure 38 shows a projected enrollment for a school system which is on double session because of lack of space. Based on the current ratio of one classroom for 24 pupils, 11 to 12 classrooms could be released making it possible for the school system to resolve its space problem without building a new high school addition.

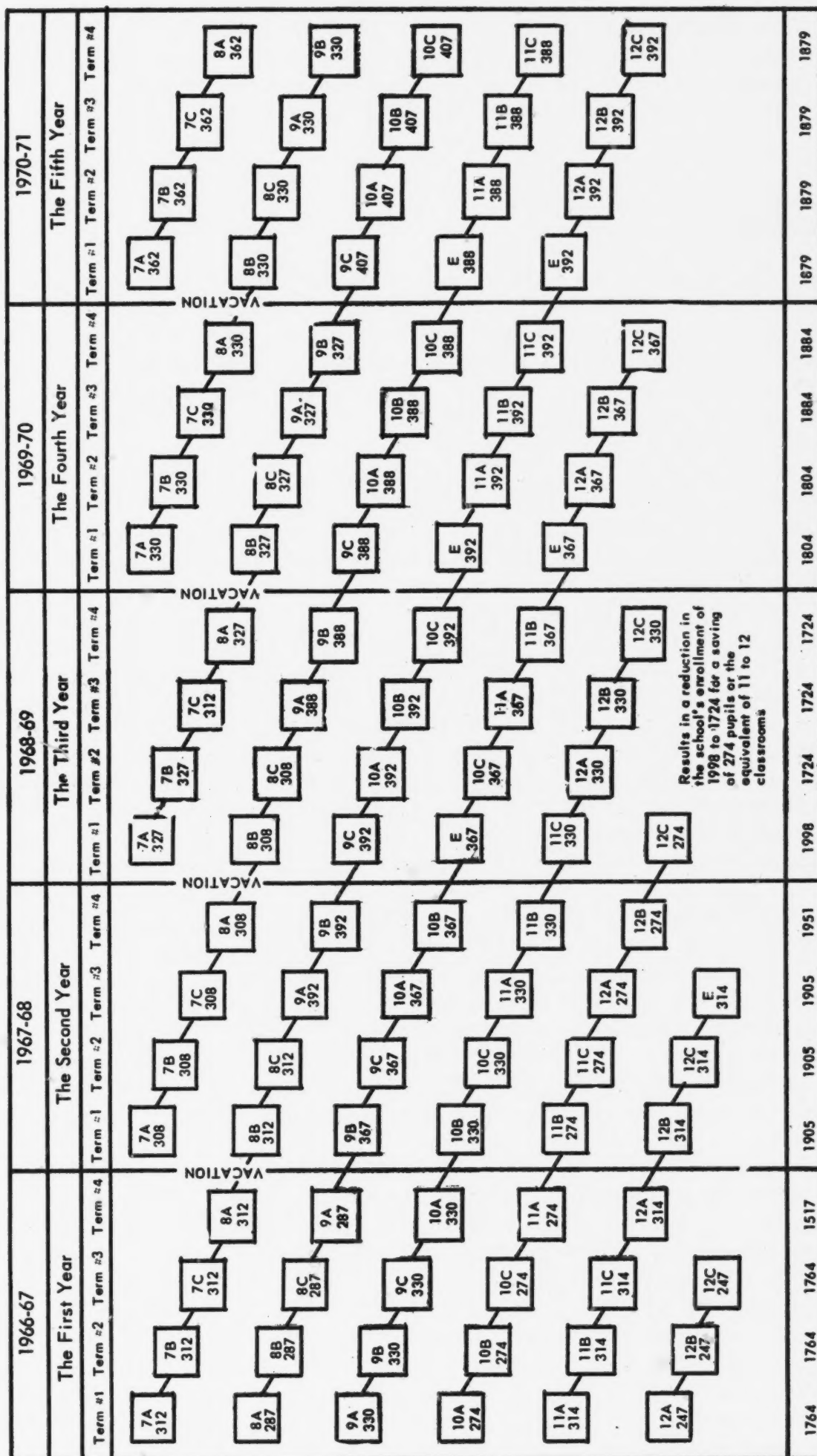
The 10A class shown in the first column at the left had 274 pupils. Based on the ratio of 1 to 24, this class was assigned 11 to 12 classrooms. With the graduation of the class at the end of the ninth quarter, the total school enrollment is reduced from a projected 1,998 students to 1,724 students. With only 1,724 students to house and educate at the start of the 10th quadrimester, the entire school system benefits by the release of the 11 to 12 classrooms occupied by the class graduating at the end of October.

With the assistance in course selection, all or most of the students of the original 10A class could graduate in June of the second adjustment year. This allows the flow pattern to take over at the end of the seventh quadrimester instead of the ninth. It would lead to a release of 13 classrooms ($314 \div 24 = 13$ classrooms) for the remainder of the second year and a release of 11 to 12 classrooms for the full third year of quadrimester operation ($274 \div 24 = 11$ to 12 classrooms).

A comparison of projected enrollments beyond the adjustment year shows a slightly larger enrollment will be found in the quadrimester or trimester programs than in a traditional two semester plan. The larger enrollment reduces the number of classrooms saved, but this actually constitutes an intangible saving to society, because it indicates that a smaller number of students is dropping out of school prior to high school graduation. There will still be a savings in classrooms, but it will be slightly less than appears in the flow charts, since the figures do not show the projected enrollment for regular two semester operation beyond the third adjustment year.

Figure 38

The Reduction in a School's Enrollment Through the Use of a Quadrimester Plan



Part V

The Modified Summer Plan

As far back as 1912, educators were advocating summer school attendance as a way to shorten a pupil's total school life span. Today, summer school interest has increased so greatly that, in 1964, 19 percent or 248,132 public secondary school students took part in a summer school program in New York State. The major portion of these programs were essentially remedial or makeup in nature.

The Modified Summer School Plan is an attempt to deliberately accelerate pupils through secondary school, by offering more than remedial, makeup, or so-called enrichment courses. Students who take part in the proposed programs do so with the understanding that they will take new academic subjects. The courses selected at this time will be designed for the purpose of allowing them ultimately to do 4 to 6 years of work in one calendar year less.

How Long Are the Modified Summer Sessions?

Recommended programs call for the completion of at least one full year course during a 7 to 8 week summer segment. Average learners have successfully completed advanced courses by attending classes $3\frac{1}{2}$ hours a day for 7 weeks. (210 minutes x 35 days = 7,350 minutes or 122 hours.)

The instructional time available in the modified summer program exceeds that of the regular summer school, and is about equal to that of the regular school year for one subject.

In some instances, bright or fast learners are able to complete one and one-half courses in one summer.

How Long Does It Take to Release Classrooms Through the Modified Summer School Approach?

Programs based upon the progress or achievement of average pupils in grades 7 to 12 will generally take 5 years before a reduction in student enrollment will justify the release of classrooms and teachers.

What Will the Modified Summer School Program Cost?

Preliminary reports on the cost of offering new courses in the summer have shown a much lower per-pupil cost than is possible during the regular school year. However, these reports do not take into account the fact that the Modified Summer School Program should be financed on a different basis from that of the traditional summer school. The cost of a Modified Summer School Program will be higher than that of the traditional summer school because pupils will be exposed to a fuller program than is customary for summer school.

1. Instructional time for all new work will be equalized with the time allotted in the regular school year.
2. Pupil-teacher ratios will be controlled so that they approach the norm for the regular school year.
3. A number of special or support teachers will be required.
4. Transportation to and from school will be provided for pupils who live within normal distance requirements.
5. Extended school year costs include expenditures formerly covered by tuition charges.

How Many Classrooms Can Be Released With the Modified Summer School Plan?

It is not easy to predict the effect of the modified summer school upon capital outlay and debt service. As long as the program remains a voluntary one, the number of classrooms released will vary, according to the interests of the pupils and the nature of the curriculum adjustments made during the regular school year to accommodate pupils who take advantage of the modified summer school plan to accelerate their way through an elementary or secondary school program.

Estimates in one school system were made to the basis of an expected 20 percent enrollment in the new program, but a second school system projected a 50 percent enrollment. This could lead to an ultimate saving of classrooms equal to one-fifth to half of a graduating class' needs.

Why Do School Administrators Seem To Favor This Plan?

The summer school approach to the extension of the school year is a simple solution at both the college and high school levels, but the colleges were the first to use the summer school to save time. Each year thousands of college students have completed degrees or made up for deficiencies by going to summer school, whereas high school and even elementary summer schools have offered courses which students ordinarily take in high school, such as typing, driver education, music, and art. Some advanced courses for gifted pupils in areas of science and mathematics can be found, as well as a number of other courses bearing the label "enrichment."

School administrators seem to favor the summer school approach to the extension of the school year for some of the following reasons:

1. The Summer School Plan is voluntary. Nobody stirs the dust in the community as long as the decision to go to summer school is voluntary. Parents may not like the idea of sending a boy to school to make up one or more courses, but it becomes their decision to send him to school. If the action interferes with a family vacation, the pupil is to blame and not the school.

2. Taxpayers do not object to the summer school approach in many school systems because the programs tend to be supported by fees and assessments. Little, if any, tax money is used to support summer school programs. This is especially true where students from outside a district can be charge tuition that will largely pay for the summer school operation.
3. Teachers may choose their own summer activities. School administrators find more volunteers interested in teaching summer school classes than they can usually employ, but there is a large segment of the teaching profession which enjoys long summer vacations. This group may have other interests or even other jobs to occupy their time. The summer school program that is strictly voluntary does not interfere with their travel, study, hobbies, and rest. Where husbands are working, there may be no incentive for another month's work due to the large amount of taxes that has to be paid as the combined family income reaches another tax bracket. School administrators do not meet opposition from teachers as long as they do not have to tell them that they will have to work for another 4, 6, or 8 weeks.
4. Summer schools have been fairly inexpensive operations. Per pupil costs are low because the teachers do not receive the same compensation during summer school that they do during the regular school year. Again, the program is not a complete one involving specialists, guidance staff, and even the same school administrators.
5. The status quo does not have to be upset in areas of school administration, curriculum, and public relations. Except for the makeup factor, most summer school programs have little impact upon the regular school year operations. Schedules do not become complicated because pupils can remain in regular classes. Since few students in the past have taken advantage of the acceleration option, there has been only one output. School administration can remain uninvolved; where outsiders are employed to operate a summer school program, the normal problems of discipline, curriculum, and staff or parent complaints are removed from the principal's responsibility. Members of the board of education and the superintendent are usually free to consider other matters, since the public is less critical of a summer program than of regular school.

The Modified Summer School May Lead To The Adoption of a Trimester or Quadrimester Program

When the summer school and regular school calendars are combined, the resulting school calendar can be longer than some of the other extended school year programs. In view of this, some people see the modified summer school as leading to trimester or quadrimester programs.

The Flow Pattern for a Modified Summer School Program

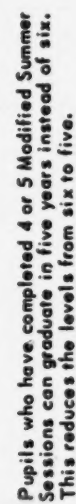


Figure 40

A Sample Calendar for a Modified Summer School Year Program - 1966-67*
School Calendar Variation No. 6

Month	Day	Legend	Days of Schooling
September	6	Children Return to School	
September	15	Rosh Hashonah - Optional	18 - 19
October	3	No School - Teachers Conference	20
November	11	No School - Veterans Day	
November	24-25	No School - Thanksgiving Recess	19
December	23	Last Day of School Before Christmas Recess	16
December January	23 - 1	No School - Christmas Recess	
January	2	School Reopens	22
February	13	No School - Lincoln's Birthday	
February	22	No School - Washington's Birthday	18
March	24	No School - Good Friday	
March April	25 - 2	Easter Recess	17
April	3	School Reopens	20
May	29-30	No School - Memorial Day Recess	21
June	16	Last Day of School for Regular School Year	<u>12</u>
Number of Days in Regular School Year			183 - 184
June	19	First Day of Modified Summer School Session	10
July	3-4	No School - Independence Day Recess	
July	5	School Reopens	19
August	8	Last Day of Classes	6
August	9-10	Regents Examination Days	<u>2</u>
Number of Days of Schooling in Summer Segment			<u>37</u>
Total Number of Days in School Year			220 - 221

*A six, seven or eight week summer session may follow the regular school year. This session may begin immediately after the end of the regular school year or it may begin after a week's vacation.

Figure 41

Comparative Number of Days in Regular and
Extended School Year Calendars

Number of days of schooling found in suggested school calendars			
Regular School Year		Extended School Year	
Regular summer school*	32 days	Minimum trimester	204 days
Regular school year	180 days	Desired trimester	210 days
Total no. of days	212 days	Maximum trimester	225 days
Modified summer school*	37 days	Minimum quadrimester	204 days
Regular school year	180 days	Desired quadrimester	212 days
Total no. of days	217 days	Maximum quadrimester	220 days

*Includes 2 days for examinations

Can the Modified Summer School
Be a Voluntary Program?

As long as the program is maintained on a voluntary basis, some administrative scheduling problems will be created. The Modified Summer School Program under consideration will have a greater impact on what happens during the regular school year than has been true of traditional programs. The new program requires that pupils who elect to remain in school during the summer, take new courses.

The issue of compulsory versus voluntary attendance must still be faced. At present, the voluntary program tends to widen the gap between disadvantaged and nondisadvantaged pupils, since the latter group is generally not motivated to attend summer school without pressure. This results in a lack of equal educational opportunity for the two groups.

Further study is needed to determine whether the traditional makeup summer school can be fully integrated with the Modified Summer School. Early studies have shown conflicts can develop where the two programs are carried out as parallel but separate operations. In many instances the conflicts are based upon the existence of opposing philosophies of education and a lack of coordination with the ongoing regular school year program.

Pilot programs based on a completely voluntary enrollment have been weakened by last minute student withdrawals due to unexpected failures that require participation in a makeup program instead of an advanced placement program. The loss of these students tends to limit course offerings where minimum enrollments are required. One solution to this problem may lie in the substitution of parallel first time courses for a makeup course. Another answer may reside in combining the makeup and modified summer school pupils in the same courses.

Part VI

The Nature of the Extended K to 12 Plan

The Extended K to 12 Plan is predicated upon the premise that every boy and girl can benefit from an organizational pattern which guarantees children more educational opportunities with little, if any, extra cost to the community. Under this new proposal, all the pupils in a given school system engage in activities which are continuous in nature for an extra month.

Since this new proposal is based on the concept of saving 1 year out of 13, the extra instructional time which is made available to the children at designated grade levels can be used to enlarge or broaden the curriculum.

1. For 58 to 75 percent of the students in the school (K-12) at a given time, the sole purpose of the longer school year will be to help them master fundamental processes and to broaden their educational backgrounds.
2. The remaining 25 to 42 percent of the students will use the longer school year to save the 1 year needed to reduce school enrollments which, in turn, will release classrooms and teachers. In addition, they will still benefit from the added instructional time which will be available to them at their levels, i.e., the "E" terms.

The economy objective, which is important due to increasing school enrollments and rising school costs, is realized from savings in other areas than current expense. For instance, the reduction in a school enrollment releases classrooms, which results in projected budgetary savings in capital outlay, debt service, and operating costs.

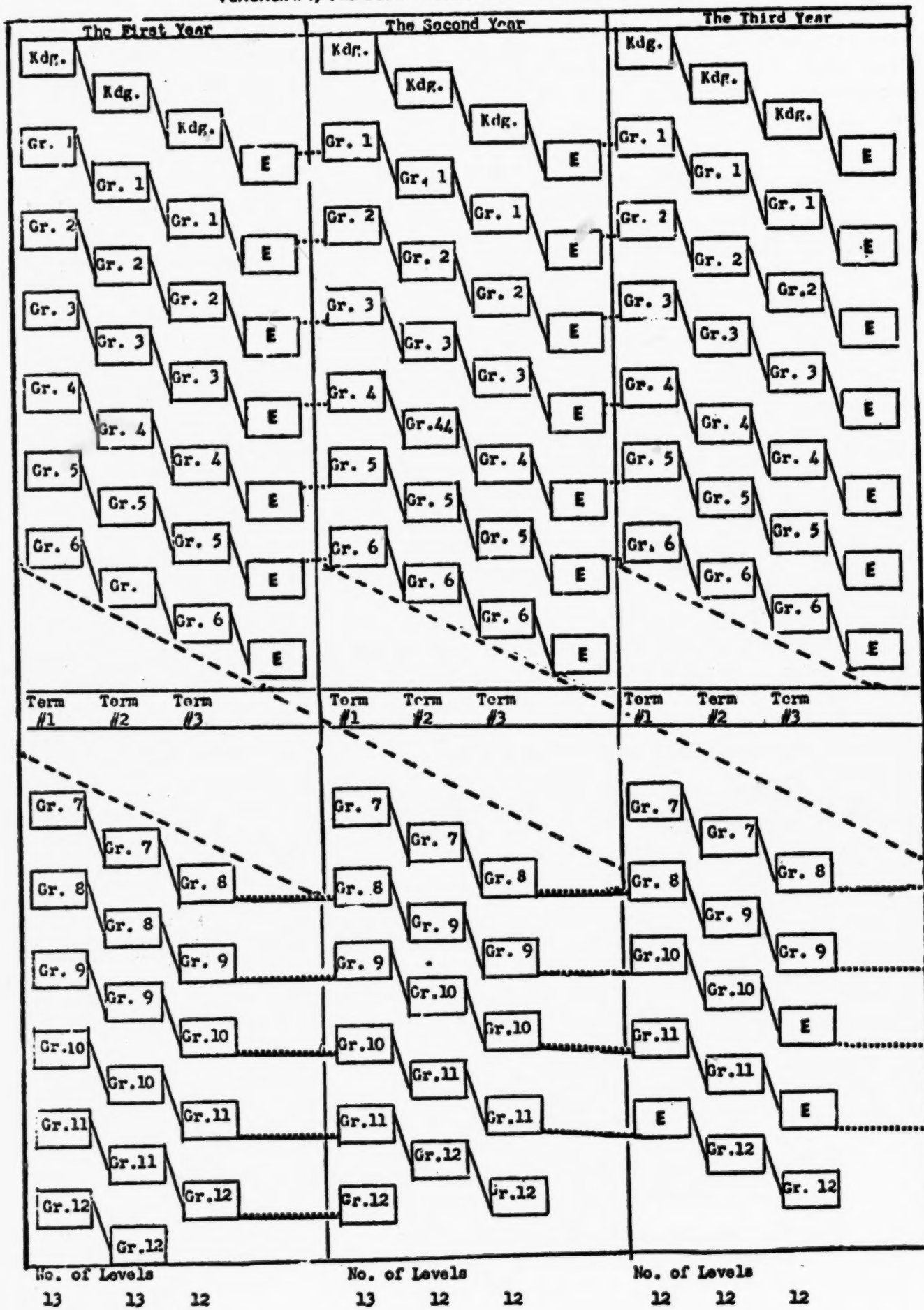
The Extended K to 12 Plan is a composite of features from other extended school year designs. While at least six variations of this plan have been developed, only two of them are described in the following pages.

Variation No. 1 The Use of the K-6 and 7-12 Organizational Plan

- (a) Elementary school pupils work through 7 longer school years with no thought of using extra days for anything but
 1. perfection of skills in fundamentals
 2. branching out into new fields of learning
 3. working in a broadened and enriched curriculum for the satisfaction which comes from success and growth.
- (b) The saving of 1 year is accomplished with a trimester or quadrimester program at the secondary school level. (Grades 7 to 12)

Figure 42

STUDENT FLOW PATTERN IN AN EXTENDED K to 12 PROGRAM SAVING ONE YEAR OUT OF THIRTEEN
Variation #1, The Use of a Middle School Organizational Plan



Pupils arriving at the seventh grade with the equivalent of 168 to 210 added days of schooling should be better prepared for secondary school experiences, plus an acceleration of their program of study.

Variation No. 2 The Use of a Middle School Organizational Plan

This program is based upon the development of a middle school program with 1 year saved in the middle school or in the upper school.

- (a) The Lower School comprising kindergarten plus grades 1 to 4 is organized on a continuous school year type program with extra time being devoted to the mastery of fundamentals or to enrichment activities.*
- (b) The Middle School proposed for the extended school year program should include grades 5, 6, and 7 if space is to be saved at the Upper School level. Grade 4 can be added to equalize the number of grades in the Lower and Middle Schools, but the eighth grades should not be included. (See figure 43.) Pupils in the Lower School and Middle School are expected to use the extra 24 to 30 days of schooling each year to broaden their background or to acquire adeptness in fundamental skills and processes.*

If a decision is made to try to save time and space in the Middle School, it is recommended that the new school include grades 5 to 9. This would establish the Middle School as a five graded school. However, with the development of a trimester or quadrimester flow pattern, provisions would never have to be made to provide education or space for more than 4 levels or class groups during any given term.

- (c) The Upper School proposed for the Extended K to 12 program should include grades 8, 9, 10, 11, and 12 if time and space are to be saved without placing pupils under a time pressure. This would result in the establishment of a five graded school, but with the development of a quadrimester or trimester flow pattern, provisions would never have to be made to educate or house more than four grades or class groups during any one term.

The Upper School can be established as a four graded school with grades 9, 10, 11, and 12. This four graded structure would be reduced to a three graded school after the adjustment period that goes with the adoption of a trimester or quadrimester program. There would be

*Other variations may provide a Lower School for pupils in grades K to 4 or K to 5. The Middle School may include grades 5 to 8 or 6 to 8.

Figure 43

STUDENT FLOW PATTERN IN AN EXTENDED K to 12 PROGRAM SAVING ONE YEAR OUT OF THIRTEEN
Variation #2, The Use of a Middle School Organizational Plan

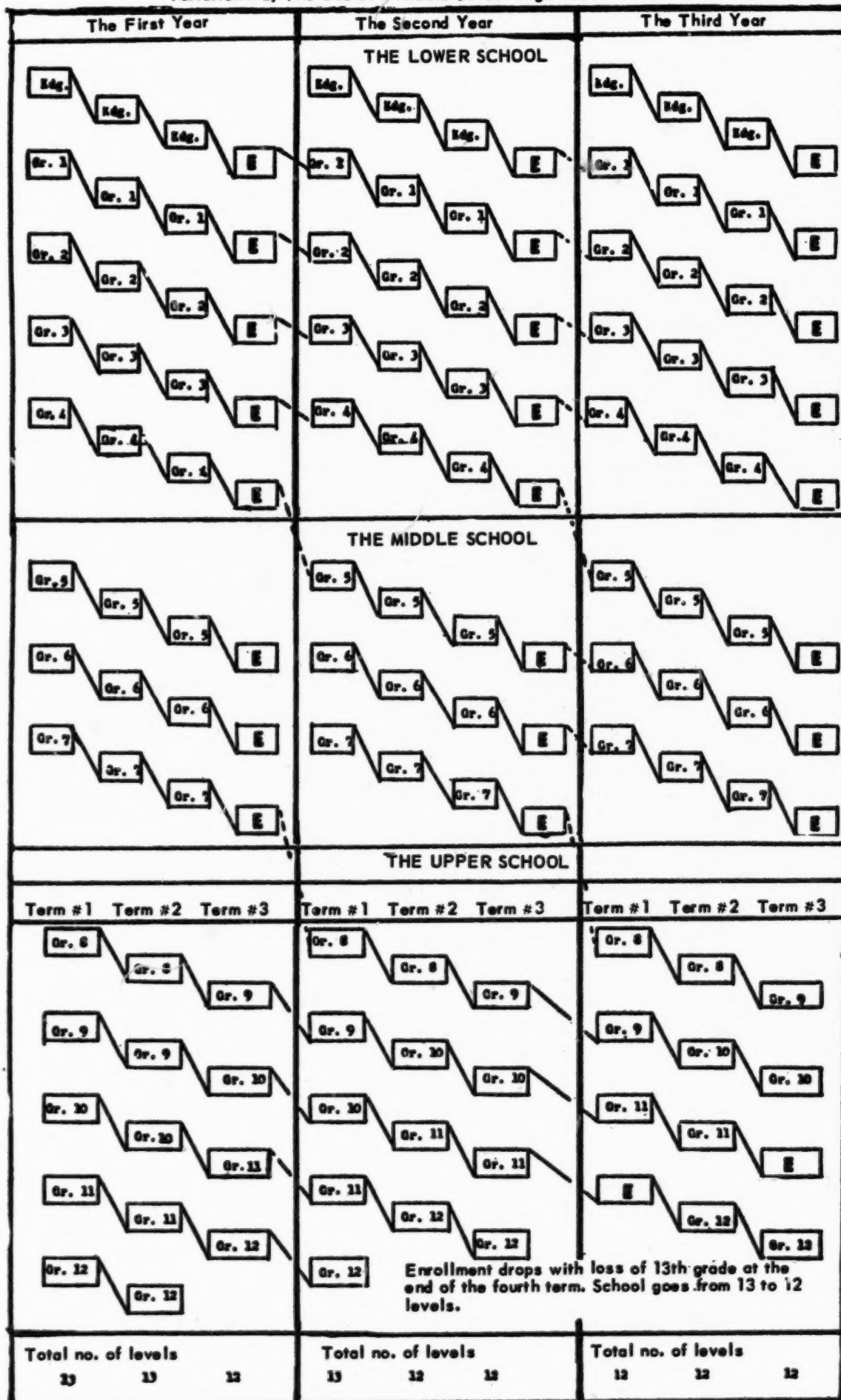


Figure 44

STUDENT FLOW PATTERN IN AN EXTENDED K to 12 PROGRAM SAVING ONE YEAR OUT OF THIRTEEN
Variation #3, The Use of a Middle School Organizational Plan

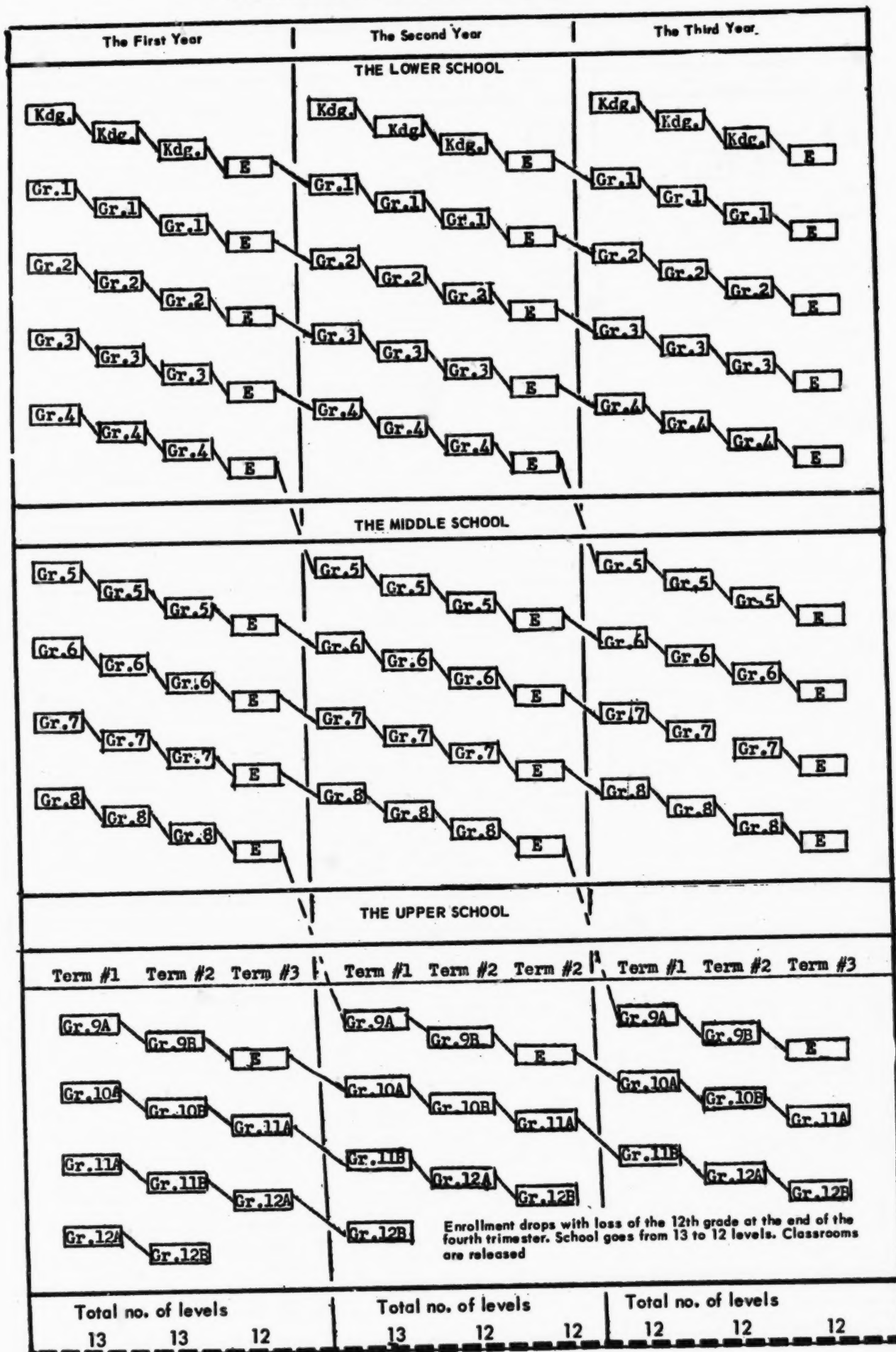


Figure 45

STUDENT FLOW PATTERN IN AN EXTENDED K to 12 PROGRAM SAVING ONE YEAR OUT OF THIRTEEN
Variation #4, The Use of A Middle School Organizational Plan

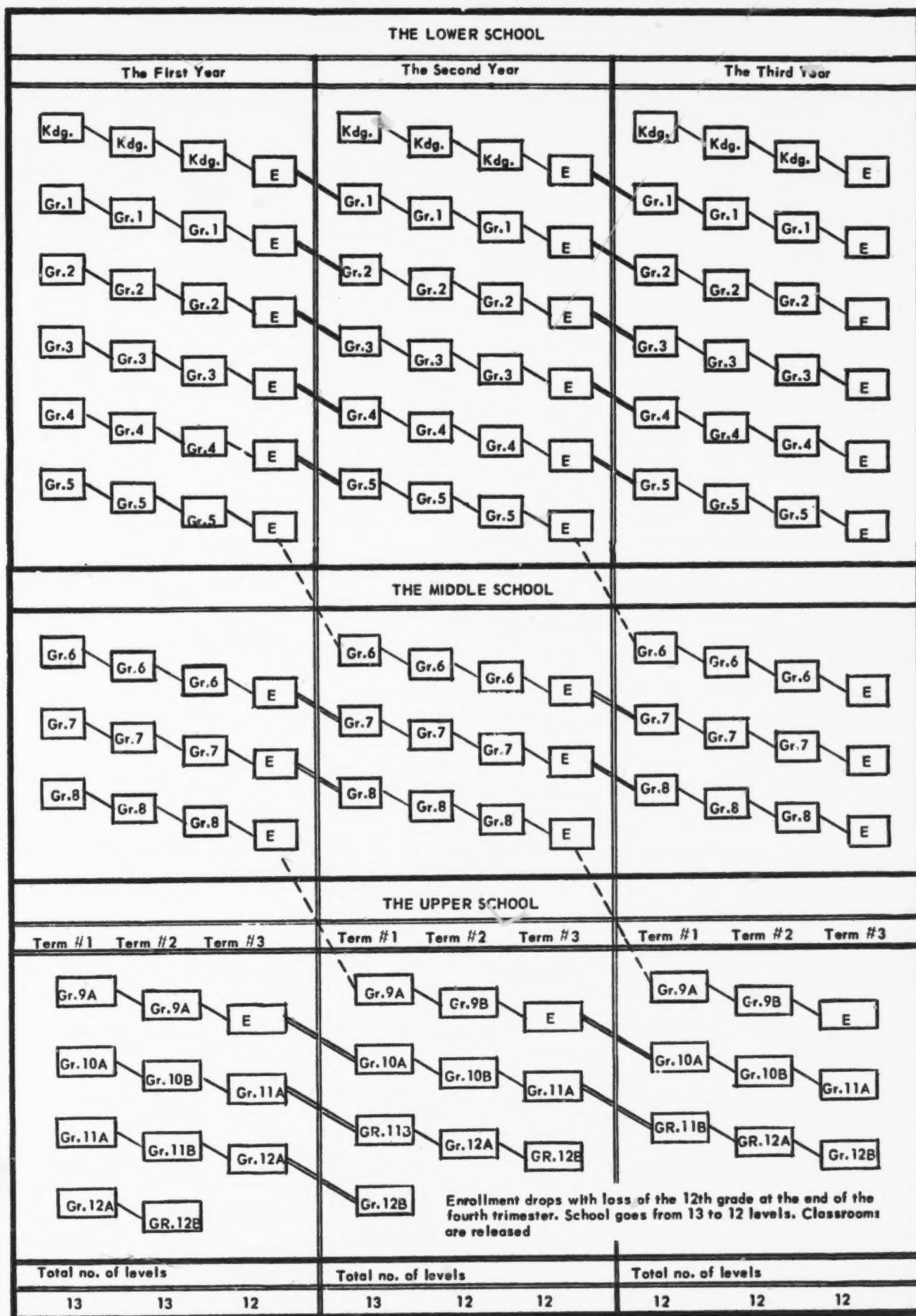
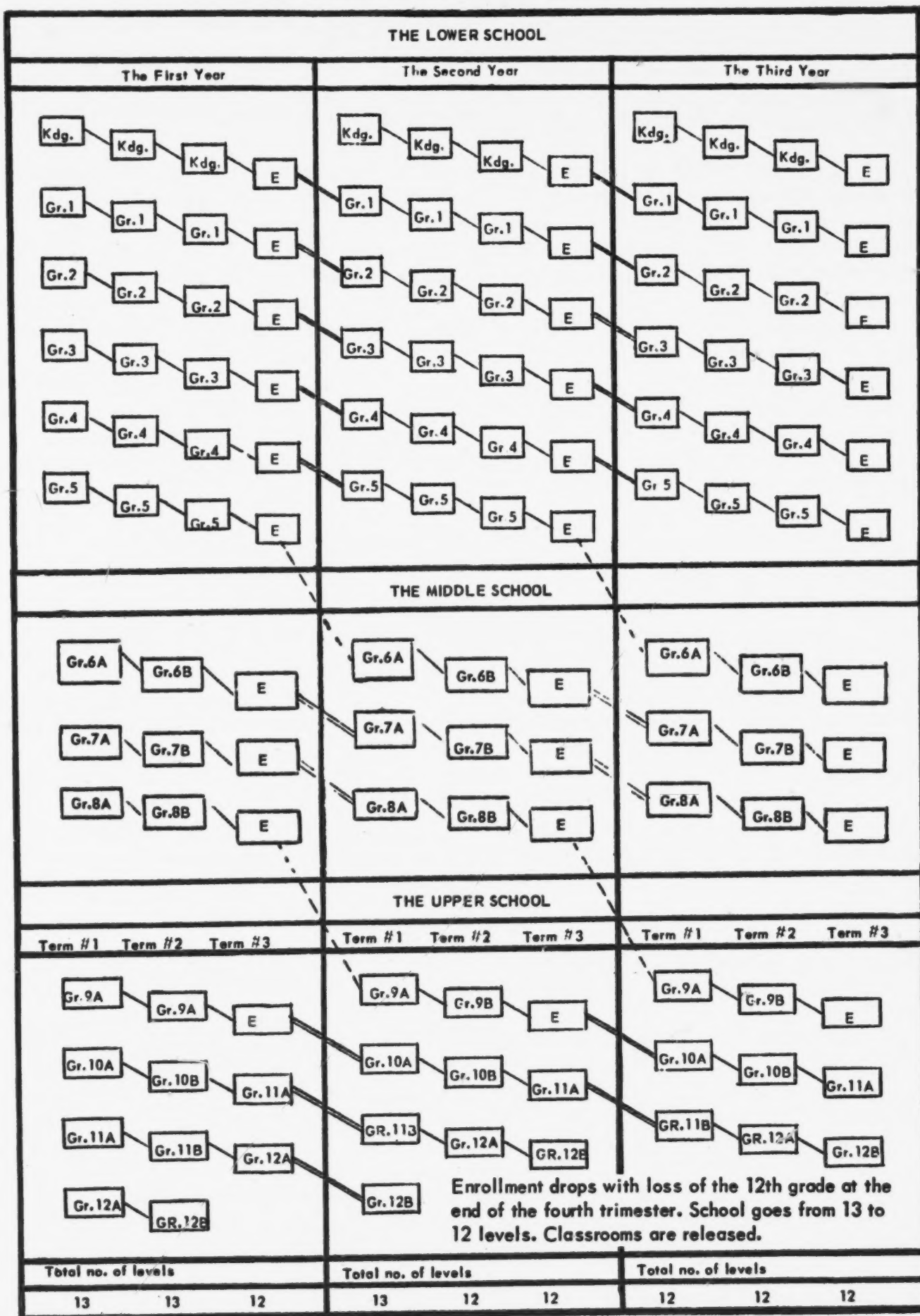


Figure 46

STUDENT FLOW PATTERN IN AN EXTENDED K to 12 PROGRAM SAVING ONE YEAR OUT OF THIRTEEN
Variation #5 The Use of A Middle School Organizational Plan



no difference in the projected savings and/or costs of the extended school year program, though the students would not have the benefit of an "E" term with the quadrimester plan. With a trimester plan, they would be limited to one "E" term.

The Nature of the Extended K to 12 School Calendar

Programs based upon the saving of a year at either the elementary or secondary school level often necessitate different opening and closing dates at the two types of schools. This problem is eliminated with the Extended K to 12 School Program. The calendar provides for uniform holidays, plus the same dates for the opening and closing of school at all grade levels.

Recommended Extended K to 12 Plans which are based on continuous progress or a new broadened curriculum for pupils in grades K-4, K-5, or K-7 do not require divisions of a school year. However, since secondary school pupils will be following trimester, quadrimester, or modified summer school calendars, it is recommended that the entire school system work within the broad time limits of the calendars illustrating these other school organizational patterns.

How Long Is the School Year in the Extended K to 12 Program?

A 204 day school year has been recommended for the Extended K to 12 Program. This would minimize many of the objections raised by parents who fear a conflict with their vacations. It would not interfere with established camping programs and would still give teachers time to attend summer school classes in colleges which have not changed their calendars.

A longer school year may be desired in some school systems in deference to those who would prefer shorter adjusted daily class periods. In this case, a 210 to 212 day school year may be adopted for all or part of the school's population.

What Are the Educational Advantages of the Extended K to 12 Program?

The Extended K to 12 Program requires all pupils to attend school for 12 lengthened school years. Only 4 to 5 years would be used to save the year necessary for the reduction of pupil enrollments and the subsequent potential monetary gains. This will enable the student to engage in a broader program of studies for 7 or 8 years.

Figure 47 illustrates what the year-by-year accumulation of 25, 30, or more instructional days can mean during an individual's school life span. If the curriculum is expanded or enriched, boys and girls can broaden their educational backgrounds as well as devote more time to the mastery and application of fundamentals.

Figure 47

**The Extended K to 12 School Year Provides More Instructional Days
For Average, Bright, and Slow-Learning Children**

Number of Instructional Days Available in Regular and Extended School Year Plans								
Grade	Median age of entry into grade	Cumulative number of days of schooling possible in regular school year	Cumulative number of days of schooling possible in extended school year			Cumulative gain in days		
		180 days	205 days	210 days	215 days	205	210	215
K	5-3	180	205	210	215	25	30	35
1	6-3	360	410	420	430	50	60	70
2	7-3	540	615	630	645	75	90	105
3	8-3	720	820	840	860	100	120	140
4	9-3	900	1025	1050	1075	125	150	175
5	10-3	1080	1230	1260	1290	150	180	210
6	11-3	1260	1435	1470	1505	175	210	245
7	12-3	1440	1640	1680	1720	200	240	280
8	13-3	1620	1845	1890	1935	225	270	315
9	14-3	1800	2050	2100	2150	250	300	350
10	15-3	1980	2255	2310	2365	275	330	385
11	16-3	2160	2460	2520	2580	300	360	420
12	17-3	2340	2665	2730	2795	325	390	455
13	18-3	2520	2870	2940	3010	350	420	490

Extended year programs starting with kindergarten will allow pupils to enter new grades or schools with more instructional days behind them. This should result in their being at higher educational levels than peers working in regular school year programs. Thus:

1. New fourth graders will have had 100 to 140 extra days of schooling.
2. New sixth graders will have had 150 to 210 extra days of schooling.
3. New eighth graders will have had 200 to 280 extra days of schooling.
4. Potential dropouts electing to leave at age 16 will have had 275 to 385 extra days of schooling.

All pupils can derive educational benefits from the extra year or more of education attainable from the Extended K to 12 Program, but the advantage to a potential dropout is especially noteworthy. Figure 8 illustrates how the potential dropout can be at least one step higher when he reaches a legal leaving age. Many young men and women who would ordinarily have been classified as dropouts will graduate under the new program, and others may be so close to graduation that they will elect to remain in school to complete a program of study.

For instance, a boy who starts kindergarten at age 5 can obtain, with the minimum 204-205 day school year, 264 to 275 extra days of schooling. By the time he is 16 years old, should he elect to leave school, he could be one to one and one-half years further advanced academically.

The longer school year at the primary level can influence pupil's attitudes and behavior for the rest of their lives, if the time is used wisely by the teachers. Since the objective is not to save time at these lower grade levels, pupils and teachers can work without pressure.

What Happens to the "E" Terms?

Since terms, as such, are not inherent in a Continuous School Plan, the program of a Lower and Middle School organized on this basis will not include time blocks designated as "E" terms.

However, students do obtain the equivalent of such "E" terms with extra educational opportunities even where semesters, trimesters, or quadrimesters are not an essential part of a school's organizational plan. Figures 42 to 46 show these equivalents for grades K to 6 and K to 7.

If a Quadrimester Plan is adopted, the students receive the equivalent of 9 "E" terms in 12 extended school years. A Trimester Plan involving all or part of the school system would provide the equivalent of 10 "E" terms, but they will be shorter than a full trimester in elementary school grades K-5 or K-6.

What Are the Economic Advantages of the Extended K to 12 Program?

Extended school year plans show a financial return to a school system in at least four budgetary categories, namely:

1. instructional salaries
2. capital outlay
3. debt service
4. building operating cost

Under the extended K to 12 program, financial savings will be available in each of these areas except salary expense. There could be additional savings if the community has high transportation costs which can be reduced when the total enrollment is decreased.

Fig. 48

Amount of Extra Instructional Time Provided by the End of Designated Years
of an Extended K-12 Program With a School Calendar of 204 Days

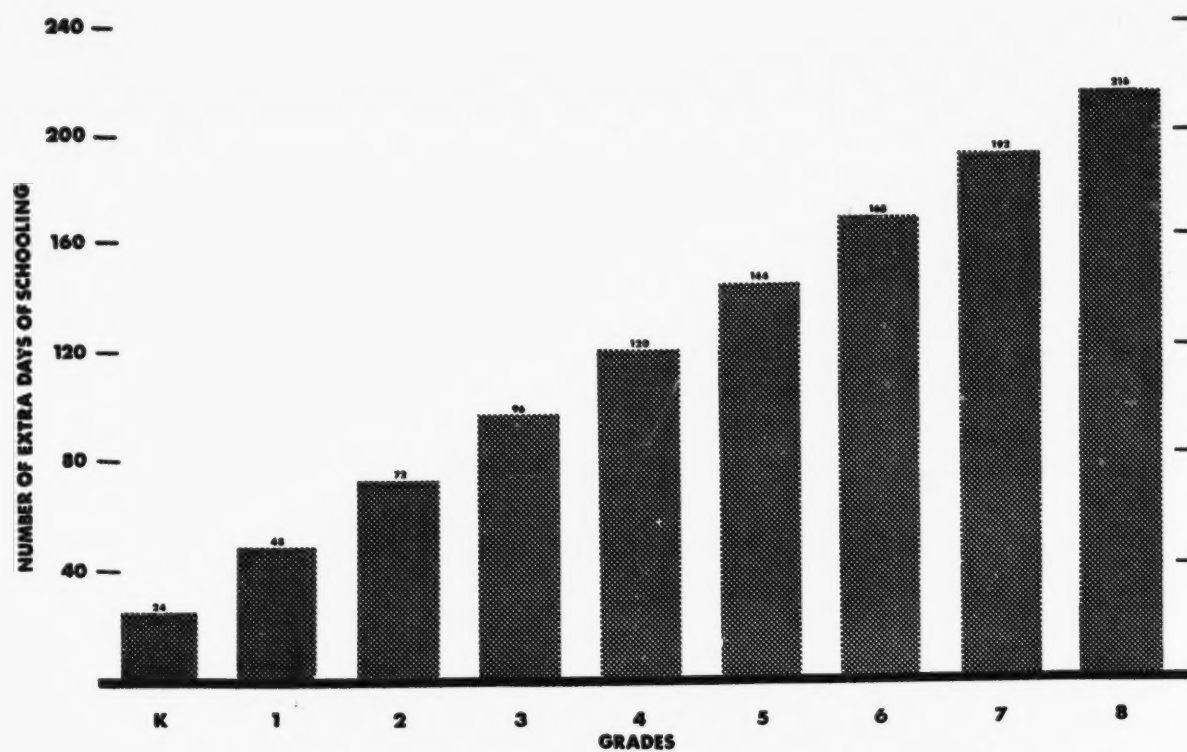
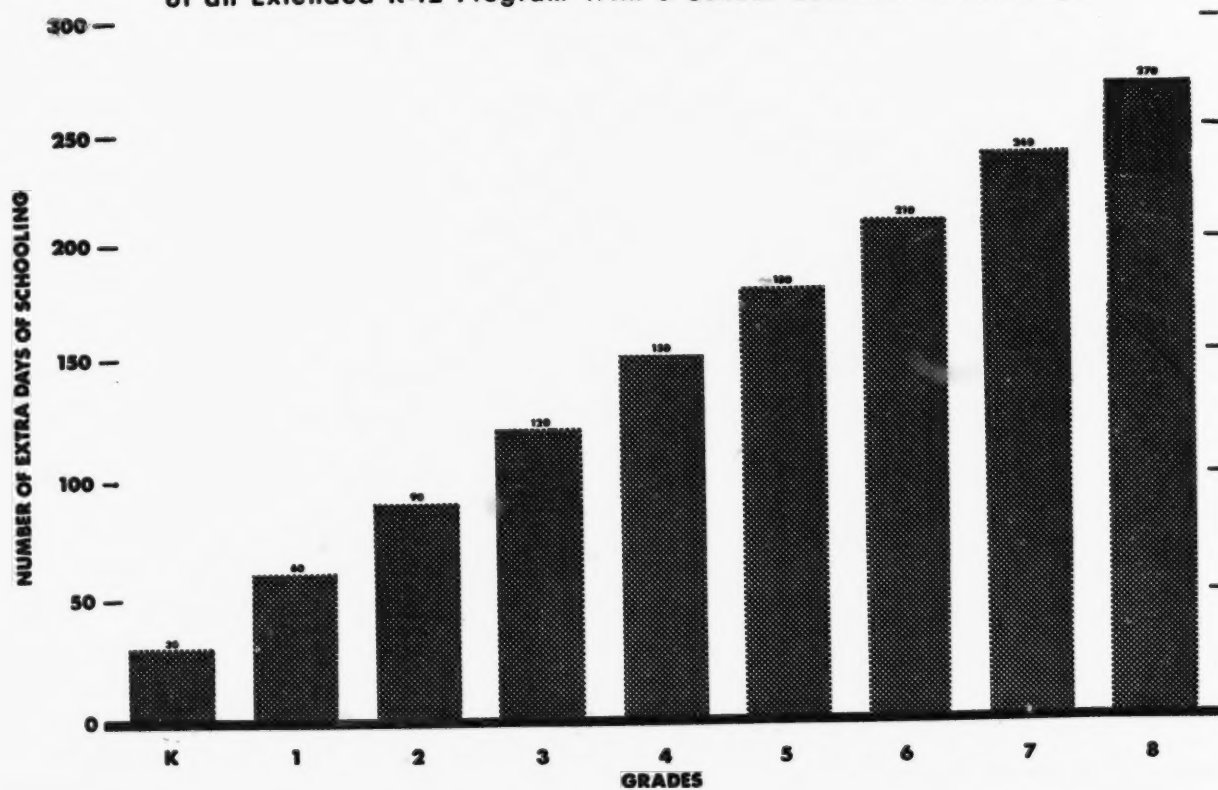


Fig. 49

Amount of Extra Instructional Time Provided by the End of Designated Years
of an Extended K-12 Program With a School Calendar of 210 Days



Since the extended K to 12 plan is based on the saving of one year in thirteen, the new program must support extra salary costs for the teachers of nine extra grade levels during the adjustment year and eight extra grade levels thereafter. Preliminary cost studies show that the financial savings resulting from the reduction in the size of the teaching staff can provide a 7 to 8 percent increase in salary and related retirement charges. If teachers receive a salary increase of 10 percent or more, savings in other current expense items may help to compensate for the deficiency without using the anticipated profits or savings which will accrue to the community in other sections of the school budget. For example, the reduction in school enrollments should have a parallel effect on transportation costs. Again, the introduction of a Middle School can lead to savings in staff and space over and above those shown for the extended school year program above.

A number of preliminary costs studies show the cost of a 10 percent salary increase for teachers will increase the school budget by approximately 6 to 7 percent of the total operating expenditures for the first adjustment year. After this point, the reductions in student enrollment will provide other savings to counterbalance the extra costs. As a result, the program can become a self-sustaining operation.

The new program will release for all school use the classrooms and special facilities formerly used by the 12th grade students. The amount saved in capital outlay, debt service, and operating costs will be related to the number of classrooms and special facilities occupied by the 12th grade pupils.

1. Each classroom saved may result in an annual saving of approximately \$1,700 in interest charges.
2. Each classroom saved may result in an annual saving of approximately \$2,000 in capital outlay (reduction of principal).
3. The projected saving in special facilities cannot readily be calculated. For example, the reduced enrollment reduces the demands made upon the library, laboratories, special classrooms, the gymnasium, the auditorium, the playgrounds, etc.

By eliminating the need for a new school or addition to the existing plant, the extra cost for added staff and equipment, heat, light, and maintenance will be saved in proportion to the space released by the graduating class.

Case Study The Potential Impact of an Extended K to 12 Program Upon a Small Industrial City

The Community

M---- is a small industrial city whose prosperity has declines with the loss of several key industries. There has been a parallel decrease in population from 13,000 to 9,000. The city's economic future is uncertain

and money is considered tight. Therefore, the schools and other municipal agencies are hard pressed to supply the service expected in a modern society.

The Schools

In two of the four elementary schools the third floor is out of use because it is considered unsafe for class activities. As a result, four elementary school groups are housed in makeshift facilities. The junior-senior high school has an elementary school wing. This building is old and obsolete, but good educational activities are nonetheless still being carried on. For example, there is a strong commercial department and the new language laboratory is a center of purposeful and meaningful activities. Two referendums for a new high school have been defeated; there is some uncertainty that a third referendum would be acceptable.

Projected Enrollments

Projections show that a very stable elementary and secondary school enrollment can be expected for the next five years. Based upon straight line projections, it will be difficult to justify new school construction on any basis other than updating or replacing old schools which are free and clear of debt.

Enrollment Forecasts Based Upon Straight Line Projections

School	1964-65	1965-66	1966-67	1967-68	1968-69	1969-70
Elementary (K-6)	1032	1027	1008	1018	1041	1049
Secondary (7-12)*	806	826	856	850	834	945

*The secondary school enrollment projections fail to include recognition of a consistent rate of attrition; therefore, the straight line forecasts result in figures which are too high.

Directions Which May Be Taken

The school administrators and the school board members who want to improve the conditions of their schools have several courses of action, each of which is controversial. For example:

1. The voters may be asked to approve the construction of a new school to replace the present elementary-secondary school. This will cost between \$3,000,000 to \$4,000,000 and will create strong local tensions over the problem of site acquisitions.

2. The voters may be asked to replace one or more elementary schools.
3. The voters may be asked to adopt the Extended K to 12 Program in an attempt to:
 - a. Relieve the pressure on the junior-senior high school
 - b. Eliminate the use of emergency facilities
 - c. Reduce the size of the new school construction project by the number of classrooms saved.

The Potential Advantages of an Extended
K to 12 Program for the City of M----

A. The K to 12 Program in Relation to the Building Program

Since the city of M---- needs new schools, the Extended K to 12 Program, which will at best result in a saving of 6 to 7 classrooms, should not be looked upon as a solution to the school system's building program. Rather, it should be considered in terms of what happens if the public turns down the proposed referendum again.

If a bond issue of \$3,500,000 to \$4,000,000 is approved, the saving of 6 or 7 classrooms will seem small in comparison to the large debt the public is assuming. However, the adoption of the Extended School Year can result in an annual saving of approximately \$20,000 to \$24,000 in capital outlay and debt service charges.

However, if the voters reject the proposed referendum, the saving of 6 or 7 classrooms takes on new significance.

1. The four classes currently housed in make-shift facilities can be reassigned to the released classrooms in the regular schools.
2. Two or three classrooms can be released in the high school for the expansion of programs or to eliminate the use of substandard basement rooms.
3. There will be potential savings in capital outlay, debt service, and operating costs.

B. Additional Education for All Children

1. All students in the elementary school will obtain the benefits of approximately 24 extra days of instruction. If this is cumulative,

the pupils entering the secondary school after 8 years of the extended K to 12 program will have had the equivalent of an extra year of instruction.

2. Pupils in the secondary school will have the equivalent of two to three "E" terms.

C. The K to 12 Program in Relation to Summer School

In the past, 24 percent of the secondary school children attended summer school primarily for remedial or makeup work. With the extra "E" terms and the additional educational opportunities in the elementary school, summer school attendance will no longer be required for a large segment of the school population.

D. A Reduction in the Rate of Dropout

In the past, dropout rate was high. Approximately 36 percent of those pupils starting 9th grade terminated their schooling before graduation. With the Extended School Year providing greater educational opportunities, a large number of the potential dropouts will receive their diplomas.

1. The Extended K to 12 Program provides each potential dropout 264 to 298 extra days of instruction between the ages of 5 and 16 or 17. As a result, each individual pupils could be one to one and one-half years further up the educational ladder by the time he reaches a legal leaving age.
2. Other pupils will be so close to graduation that they will elect to complete their secondary schooling and receive their diploma.
3. The saving of one school year at the secondary level automatically eliminates the group of dropouts who ordinarily leave school during the 11th and 12th grades.

Part VII

An Introduction to the Split Trimester

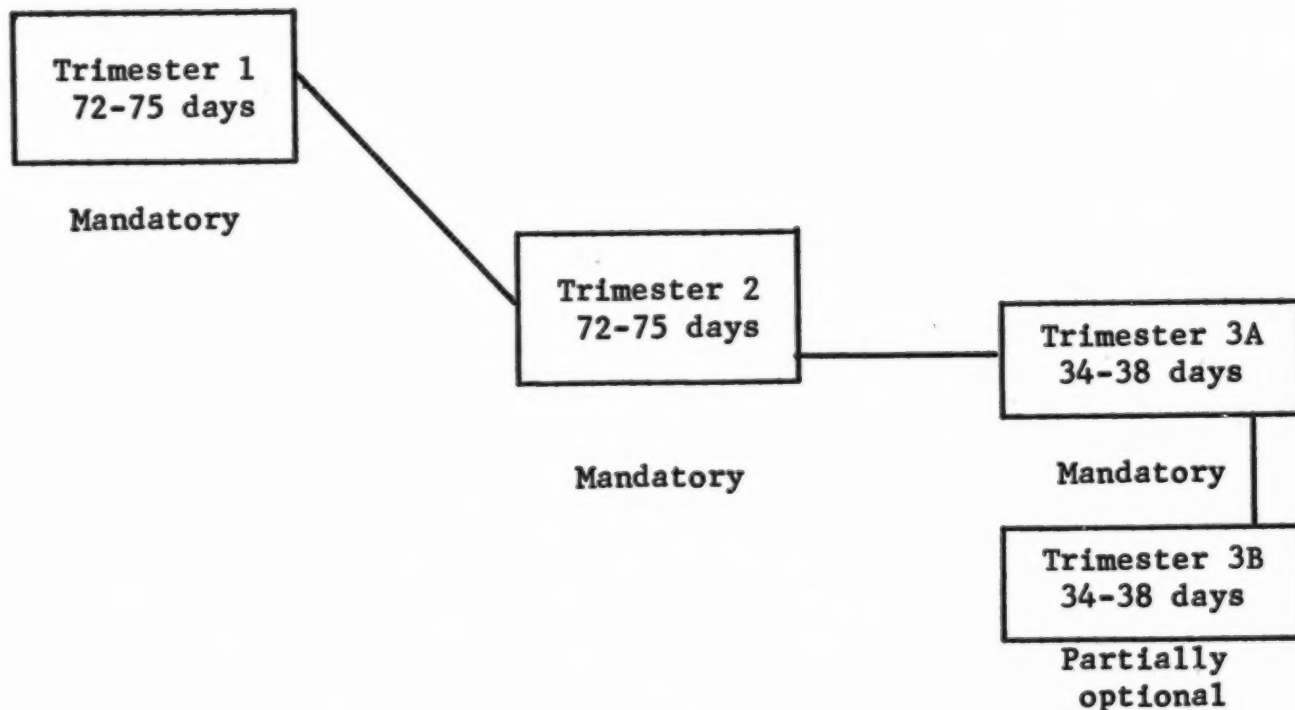
The concept of the split trimester is a compromise between the regular trimester program and the traditional summer school. It is an attempt to provide a program of continuous education beyond the limits of the regular school year, but because it is a compromise, the objectives of the regular trimester program are only partially realized when the split trimester design is adopted.

What Is Meant by the Split Trimester Plan?

The split trimester plan differs from the regular trimester in that it introduces voluntary student participation in an extended school year program. The new lengthened school year is divided into three equal segments varying from 72 to 75 days in length. The first two trimesters are no different from trimesters already described, but the third trimester is divided into a 3A and a 3B Session. Each of these split trimester sessions is 34 to 38 days in length.

Figure 50

The Nature of a Split Trimester



If the split quadrimester plan is adopted, the fourth quarter is divided into a 4A and a 4B session, with pupils being free to begin their extended summer vacations at the end of the 4A session. Those who remain in school will continue with regular school activities for approximately 6 or 7 weeks.

Figure 51

Saving One Year Out of Six With a Completely Voluntary Split Trimester Design

Program of a Student Electing to
Take All Possible Vacations

	Trimester No. 1	Trimester No. 2	Trimester No. 3	Comment
First Year	7A	7B	8A-1	Mandatory 2½ trimesters
Second Year	8A-2 8B-1	8B-2 9A-1	Vac. 9A-2	Optional Trimester 3B Mandatory 2½ trimesters
Third Year	9B	10A	Vac. E-1	Optional Trimester 3B Mandatory 2½ trimesters
Fourth Year	10B	11A	Vac. 11B-1	Optional Trimester 3B Mandatory 2½ trimesters
Fifth Year	11B-2 12A-1	12A-2 12B-1	Vac. 12B-2 Vac.	Optional Trimester 3B Mandatory 2½ trimesters Optional Trimester 3B

A student, electing to terminate his schooling at the end of Trimester Session 3A, can complete the equivalent of a six year program of studies in five years as long as the school allows him to start new courses in the middle of Trimester 1 and Trimester 2. This flexibility in course offerings becomes a prerequisite where the concept of completely voluntary participation in a split trimester program is accepted.

Mandatory Versus Optional Features of the Split Trimester Design

All students must work through Trimester 1, Trimester 2, and Trimester Session 3A. Attendance in Trimester 3B is optional, the choice being left to the individual student in the completely voluntary plan. In the partially voluntary plan, the local school board establishes a minimum number of attendance terms, therefore, the pupils must plan to attend school for one, two, or three of the Trimester 3B sessions before they graduate.

The Completely Voluntary Versus the Partially Voluntary Split Trimester Program

Under the concept of the completely voluntary split trimester, students are not pressured to continue their schooling beyond the end of the 3A Trimester session. Conceivably, this could be at the end of the school year if none of the pupils elected to work through Trimester 3B. This plan would still lead to a saving of time, but only one half "E" term is provided since the school year is not lengthened.

The program becomes partially voluntary when pupils are required to complete one or more extra split trimester sessions in a three, four, or five year sequence of school activities. By stipulating that pupils must attend 13, 13½, 14, or 14½ trimesters in a five year time span, the school board can eliminate the element of chance and guarantee the existence of an extended school year program.

Advantages of a Partially Voluntary Program Over One Based on Completely Voluntary Participations

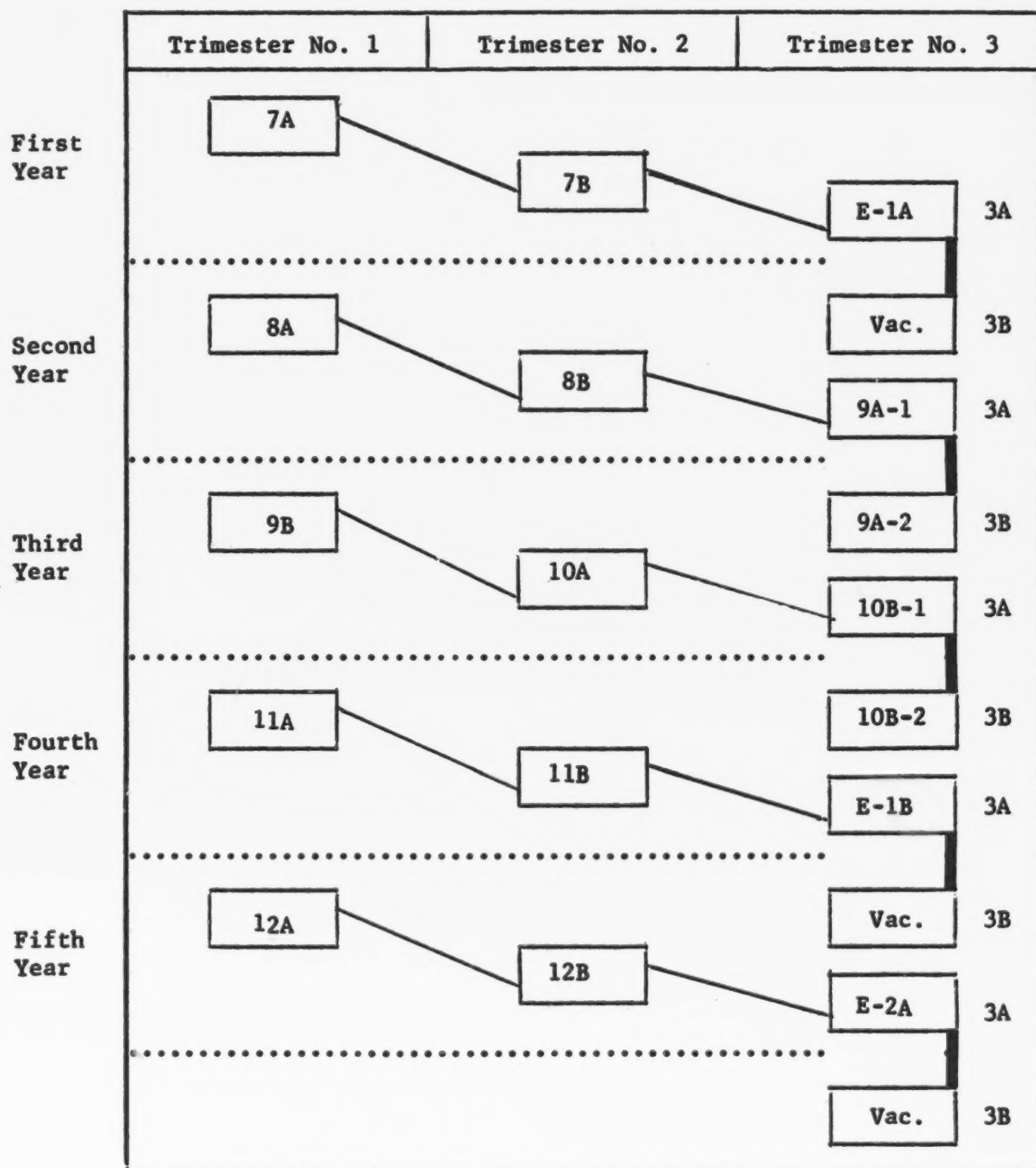
The school administrator will have a more difficult task maintaining program flexibility in a school organized on a completely voluntary participation plan than he will if the school requires one or more full three trimester years of schooling. Again, a partially voluntary plan reduces the speculation regarding the number of pupils who will take part in the second half of the third trimester activities. Some of the advantages of a partially voluntary program over a completely voluntary one may be seen in the following:

1. New courses may be introduced with a guaranteed minimum registration that will warrant the employment of master teachers without fear that an insufficient number of pupils will be in attendance.
2. The school can offer a fuller program of courses in the second half of the third trimester.
3. Pupils and teachers can work through a shorter school calendar, if they elect to do so, under the mandatory program than they can under a partially voluntary program. If sufficient pupils attend for the full third trimester under the partially voluntary program, it may be possible to shorten the school year, but this calls for preplanning and complex scheduling.

Figure 52

Saving One Year Out of Six With A Partially Voluntary Split Trimester Design

Program of A Student Attending School
for 14 out of 15 Trimesters*



* Trimester Session 3A is mandatory, but
Trimester Session 3B is partially optional.

4. The school administrator has an easier time making out pupil, teacher, and room assignments when he has a guaranteed minimum enrollment for a the full third trimester.
5. It may be possible to keep pupils together in a class based upon a partially voluntary program. Under the completely voluntary program, many classes will have to split at the end of the 3A trimester, although some of this will be avoidable through long-range assignment of students to class sections or through offering some courses on a double period basis.
6. Boys and girls are guaranteed the opportunity of at least one or more "E" terms. This will allow them to:
 - (a) Pace their progress through a full course of studies with less pressure or
 - (b) Broaden and enrich their total educational background.
7. More education will be provided for pupils who otherwise would not take advantage of education offerings; thus, the potential dropout may still obtain up to a year of extra education before terminating his schooling.
8. Teachers are able to anticipate minimum class enrollments and making teaching plans and order basic texts, supplies, and other essential teaching aids.
9. Greater continuity with the work of the first two trimesters is possible.
10. It is easier to complete transportation plans for the 3B session when a minimum enrollment is insured.
11. Under the partially voluntary plan, the adjustment period can be shortened. This is significant where there is a need for extra classrooms.
12. Potential economies in terms of a reduction in classrooms required for the first two trimesters can be realized much more readily than they can under a completely voluntary program.
13. There is a guarantee that the entire extended school year program can be made self-sustaining in one to two years with a partially voluntary program.
14. Potential monetary savings are difficult to anticipate or project when attendance is based upon a completely voluntary participation plan.

The Nature of a Split Trimester Calendar

The split trimester calendar requires a slightly longer extended school year than does a calendar for a regular trimester design. This is due to the stipulation that all students attend school for the minimum 180 days. The mandated program of the split trimester school year requires the adoption of a calendar similar to the one shown in figure 53.

Illustration: The Beginning and Ending of Trimester Sessions

Trimester No. 1

Starts September 1
Ends December 16

Trimester No. 2

Starts December 26
Ends April 7

Trimester No. 3A

Starts April 17
Ends June 8 or 9

Trimester No. 3B

Starts June 9 or 12
Ends July 28

Using different starting and ending dates, the sessions of a split trimester calendar may vary in length from those shown. It is recommended, however, that vacations be placed at the end of a trimester period. This is possible with the September 1 opening of school. With an adjustment of holidays and conference days, the opening of school could be deferred until after Labor Day. Since some school systems favor an Easter break, an adjusted calendar can be substituted for the one illustrated.

Some school administrators have requested a break of a day or two between sessions 3A and 3B. There is value in their recommendation, but the time may not be necessary for administrative purposes if advance registrations are completed in February and March.

For scheduling pupils and teachers, a common calendar for all students is desirable. However, an adjusted calendar may well be considered for pupils working through trimester 3B in order to terminate their schooling about 1 week prior to July 28.

What Happens to Pupil Vacations?

Pupils who terminate their schooling at the end of Trimester Session 3A will have an extended 11 to 12 week vacation. Those who work through Trimester Session 3B will have a 4 to 5 week vacation, plus the normal Christmas and spring vacations.

Figure 53
A Sample Split Trimester Calendar for 1966-67
School Calendar Variation No.6

Month	Day	Legend	Days of Schooling
<u>Trimester I</u>			
September	1	Schools Open for Organization Purposes	
September	5	No School - Labor Day	
September	15	Rosh Hashonah - Optional	20 - 21
October	3	No School - Teachers Conference	20
November	11	No School - Veterans Day	
November	24-25	No School - Thanksgiving Recess	19
December	16	Last Day of School Before Start of Christmas Recess	
December	16	Last Day of Trimester I	
December	17-25	No School - Christmas Recess	<u>12</u>
		No. of School Days in Trimester I	71 - 72*
<u>Trimester II</u>			
December	26	Start of Trimester II	5
January			22
February	12	No School - Lincoln's Birthday	
February	22	No School - Washington's Birthday	18
March	24		22
March	24	No School - Good Friday	
April	7	Last Day of School in Trimester II	5
April	8-16	Spring Vacation	—
		No. of School Days in Trimester II	72*
<u>Trimester IIIA</u>			
April	17	Start of Trimester IIIA	10
May	30	No School - Memorial Day	22
June	8	Last Day of Classes in Trimester IIIA	<u>6</u>
		No. of School Days in Trimester IIIA	38
<u>Trimester IIIB</u>			
June	9	Start of Trimester IIIB	16
July	4	No School - Independence Day	19
July	28	Last Day of Classes in Trimester IIIB	—
		No. of School Days in Trimester IIIB	<u>35</u>
		Total No. of School Days in 1966-67	216 - 217

*Allows for storm days in first and second trimesters.

Figure 54

EXTENDED VACATION AND "E" TERM POSSIBILITIES IN DESIGNATED SPLIT TRIMESTER PLANS

A. The Number of "E" Terms and Extended Vacations in a Five Year Trimester Plan

Type of participation	Number of trimesters of required instruction	Number of "E" terms used for instruction	Number of extended vacations
1. Completely Mandatory	15	3	0
2. Completely Voluntary	12½	½	5
3. Partially Voluntary			
a. Required Trimesters	14½	2½	1
b. Required Trimesters	14	2	2
c. Required Trimesters	13½	1½	3
d. Required Trimesters	13	1	4

B. The Number of "E" Terms and Extended Vacations in a Four Year Trimester Plan

1. Completely Mandatory	12	2	0
2. Completely Voluntary	10	0	4
3. Partially Voluntary			
a. Required Trimesters	11½	1½	1
b. Required Trimesters	11	1	2
c. Required Trimesters	10½	½	3

C. The Number of "E" Terms and Extended Vacations in a Three Year Trimester Plan

1. Completely Mandatory	9	1	0
2. Completely Voluntary	8	0	3*
3. Partially Voluntary			
a. Required Trimesters	8½	½	1
b. Required Trimesters	8	0	2

*Pupils electing three vacation periods in the three year trimester plan cannot complete a full program of study without attending school for an extra half term in the fourth year.

Can Students Complete the Full Six Year Program of Study in Five Years if Participation in Trimester Session 3B Is Entirely Optional?

Average and better-than-average learning students can complete the equivalent of the normal six year secondary program of study in five years of split trimester schooling, even where they refrain from attending school during the 3B session. Figure 51 shows the program of a student who has taken five extended vacations. He still has $12\frac{1}{2}$ trimesters, by sacrificing $2\frac{1}{2}$ "E" terms in which to complete a program of study outline for twelve semesters.

Pupils who can progress through the traditional two semester program without failing courses can do the same in the split trimester program. However, they are quite likely to find themselves under greater pressure than they would be if they paced themselves through a longer time sequence extending into the 3B sessions.

What Is the Difference in the Number of "E" Terms in the Completely Voluntary and the Partially Voluntary Split Trimester Programs?

The completely voluntary split trimester program may be more restrictive and more strenuous than the partially voluntary program due to the difference in "E" terms. The pupils still have the equivalent of one extra half "E" term in the completely voluntary split trimester, but they enjoy the advantage of additional "E" terms in the partially voluntary design. The actual number of "E" terms available for makeup work, advanced study, or broadening one's background will depend upon the number of terms required of the students.

Figure 54 shows the comparative number of "E" terms and extended vacations possible in three, four, and five year split trimester designs. However, the actual number of "E" terms available to an individual will depend upon his willingness to attend the 3B session beyond minimum requirements; i.e., under a completely voluntary program, some pupils may still elect to continue working for the full 15 trimesters in order to obtain the advantage of "E" terms.

Recommended Participation in a Split Trimester Program

In order to give pupils the benefit of some "E" terms and to facilitate the administration of the school and its curriculum, a partially voluntary program is recommended in place of the completely voluntary program. While different school systems may ultimately elect fewer or more trimester terms, the following minimums are recommended:

1. All pupils taking part in the full five year split trimester should be required to complete $13\frac{1}{2}$ trimesters.

2. All pupils taking part in the full four year split trimester should be required to complete 11 trimesters.
3. All pupils taking part in the full three year split trimester should be required to complete $8\frac{1}{2}$ trimesters.

Figure 52 shows how courses would have to be split or divided under a partially voluntary program. On the surface, at least, it gives the school administrator fewer split courses than the completely voluntary program. (Figure 51) Under the latter program, pupils may find that the small secondary school is unable to offer the variety of courses or sections they desire.

Can Adjustment Year Costs and Projected Savings Be Calculated?

Any program which gives students the option of attending or not attending school for a portion of the school year creates problems for those attempting to project either costs or savings. However, a fairly reliable set of figures can be obtained if one:

1. Projects the cost of operating the schools under normal conditions for 180 days.
2. Projects the cost of operating the schools for the regular school year, but with provisions being made for the lower staff needs which parallel the reduction in student enrollments during the course of the school year.
3. Calculates the costs and/or savings in terms of different calculated percentages of possible enrollees during the 3B session, i.e., 75 percent, 50 percent, 25 percent, etc.

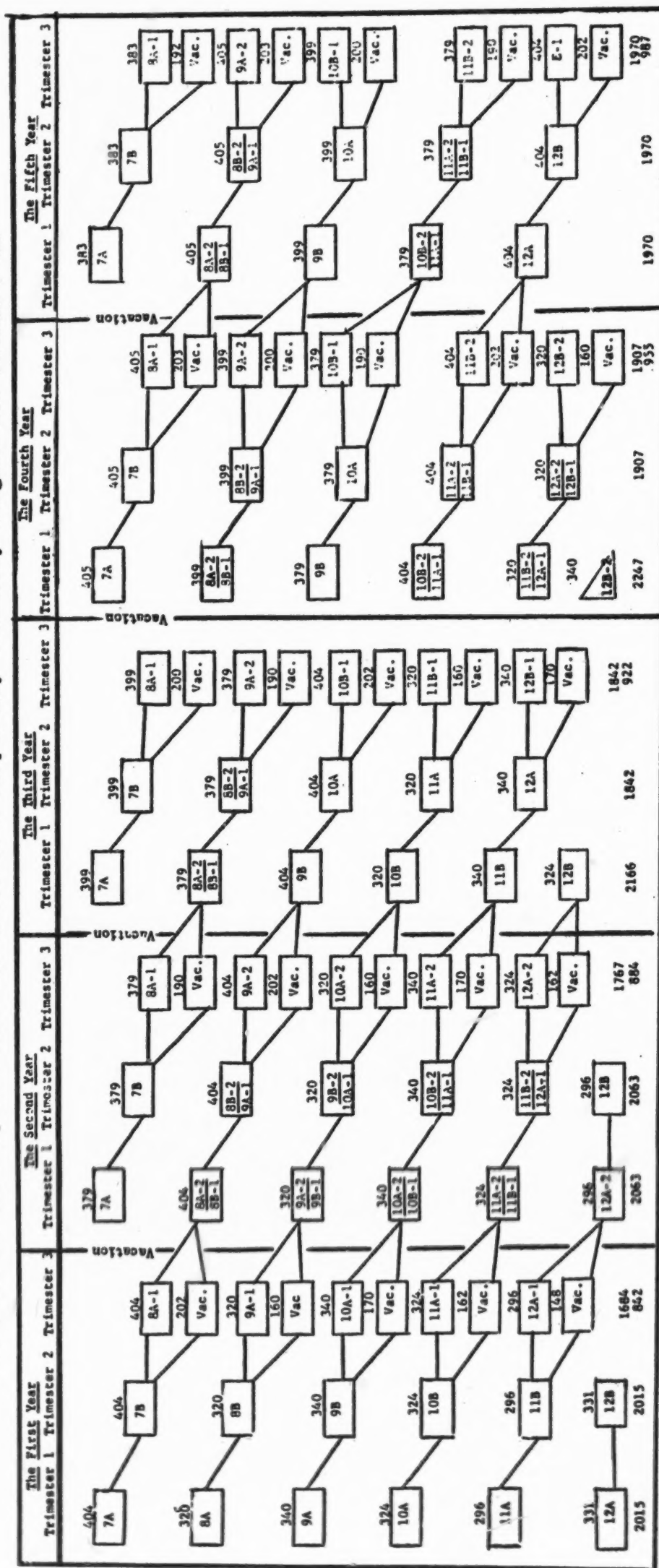
Comparisons of the costs which include both steps two and three with the cost of the regular school year program will show what can be anticipated in (a) costs during the adjustment year and (b) current expense savings after the adjustment years, bearing in mind that the major savings will most likely result from savings in capital outlay, debt service, and operating costs.

Illustration: Economic Advantages of a Split Trimester Program in School System E----

E---- is a school system with 4,979 students, 2,100 of whom are in the secondary schools. Costs were projected for the regular school year operations along with those resulting from a possible extended school year operation, based upon the use of either a completely voluntary or a partially voluntary program. The comparative costs and savings based on 50 percent and 75 percent participation in the program are shown in figure 57. (The partially

Figure 55

Flow Pattern for a Split Trimester Based on a Completely Voluntary Program for Grades 7-12



voluntary figures are based on required attendance on the part of the first designated classes for one or more 3B terms.)

How Long Does It Take To Obtain Extra Classrooms With a Completely Voluntary Split Trimester Program?

Since the split trimester flow pattern does not take over until the end of a partial term in the fourth adjustment year, the schools do not obtain the release of the 12th grade classrooms until the end of the 10th trimester. Figure 55 shows unbalanced enrollments during a portion of the first four years. This can lead to staff reductions, but the classrooms are not permanently released earlier unless a portion of the pupils are required to attend at least one 3B sessions.

How Long Does It Take To Obtain Classroom Space in a Partially Voluntary Split Trimester Program?

Classroom space can be obtained after two years if a partially voluntary split trimester program is instituted. Figure 56 shows the reduction in school enrollment taking place after the fourth trimester. At this point, the enrollment is decreased from 2,063 pupils to 1,767 pupils. Based on 24 to 25 pupils per classroom, the reduction of 296 students releases 12 classrooms plus other special facilities.

To facilitate the release of the classrooms, it is necessary to require students in the original 9th, 10th and 11th grade classes to attend one or more 3B sessions before graduation. Thus:

1. A permanent reduction in enrollments takes place in the third adjustment year (end of trimester 10) if the original ninth grade class is required to attend one 3B session.
2. A permanent reduction in enrollments takes place at the end of the second adjustment year (end of trimester 6) if the original 10th grade class is required to attend two 3B sessions.
3. A permanent reduction in enrollments takes place after one and one-third years of operation (end of trimester 4) if the original 11th grade class is required to attend one 3B session.

What Will the Split Trimester Program Do to the Curriculum?

The adoption of a split trimester program does not require a change in actual content of courses of study. However, the teachers must be prepared to think of the curriculum in terms of different time blocks. In many instances, sequence can be preserved through a restudy of course outlines and rearrangement of units. Again, changes in teaching techniques plus a more flexible scheduling of classes will help eliminate some of the problems resulting from the splitting of courses in the middle of a trimester.

Flow Pattern in a Split Trimester Based on a Partially Voluntary Participation Program for Pupils in Grades 7-12



Figure 57

Comparative Adjustment Year Salary Costs and Savings
with Completely Voluntary and Partially
Voluntary Split Trimester Programs
for School System E---

Type of program	Projected costs and savings during the		
	first year	second year	third year
<u>Mandatory Trimester Program Involving 100% Participation in 3B Session</u>			
Regular school year	\$1,085,334	\$1,164,556	\$1,232,065
Trimester 100% participation	<u>1,175,888</u>	<u>1,113,019</u>	<u>1,166,162</u>
a) added costs (-)	90,554	None	None
b) projected savings (+)	None	51,537	65,903
<u>Completely Voluntary Split Trimester with 50% Participation in 3B Session</u>			
Regular school year	\$1,085,334	\$1,164,556	\$1,232,065
Split trimester 50% participation	<u>1,130,611</u>	<u>1,214,601</u>	<u>1,114,559</u>
a) projected costs (-)	45,277	50,045 ^a	None
b) projected savings (+)	None	None	117,506
<u>Completely Voluntary Split Trimester with 75% Participation in 3B Session</u>			
Regular school year	\$1,085,334	\$1,164,556	\$1,232,065
Split trimester 75% participation	<u>1,154,349</u>	<u>1,239,213</u>	<u>1,141,193</u>
a) projected costs	69,015	74,657 ^a	90,872
b) projected savings	None	None	None
<u>Partially Voluntary Split Trimester with 50% Participation in 3B Session</u>			
Regular school year	\$1,085,334	\$1,164,556	\$1,232,065
Split trimester 50% participation	<u>1,130,611</u>	<u>1,063,795</u>	<u>1,114,559</u>
a) projected costs	45,277	None	None
b) projected savings	None	100,761	117,506
<u>Partially Voluntary Split Trimester with 75% Participation in 3B Session</u>			
Regular school year	\$1,085,334	\$1,164,556	\$1,232,065
Split trimester 75% participation	<u>1,154,349</u>	<u>1,088,407</u>	<u>1,141,193</u>
a) projected costs	69,015	None	None
b) projected savings	None	76,149	90,872 ^a
Note: Costs would be lower and savings higher if the operating expenses of a traditional summer school had been added to regular school year costs.			

^a"Completely voluntary" costs are higher than "partially voluntary" because the former permits random selection of vacation time by individual students.

Part VIII

Issues Raised by the Extended School Year Proposals

A description of extended school year designs must deal with a number of issues. In the eyes of some, there is only one issue to be resolved, the financial one. Some will readily support the proposed extension of the school year if there is a certainty that money can be saved as a result of the rescheduling of time. These people are honest in their desire to provide a sound education as economically as possible. This handbook has been written in an attempt to show how and when changing school enrollment will lead to financial economies. If the reader studies the flow charts for the trimester, quadrimester, and continuous school year program, it will be apparent that space can be made available after adjustment periods of various lengths. Preliminary cost and later dollar savings have been shown. However, further calculations are necessary before a formula can be given which will hold true for different school systems. For example, the savings which may accrue to a given community are related to the amount of money spent on education. In a school where costs are high, the savings will be much more pronounced than where per-pupil costs are already low.

While the Rescheduling of the School Year Project had its origin as a potential economy measure, the concept of the lengthened school year must be considered in terms of its educational advantages as well as its financial savings. This is one reason for emphasizing the five year trimester and quadrimester designs. Basically, these two programs offer more in the way of educational opportunity than any of the other proposals outlined except for the Extended K to 12 plan.

In brief, one cannot expect to adopt the concept of the Extended School Year solely in terms of financial economy. If it is to have an impact upon communities of the State and nation, it must be considered in the light of its educational implications as well as its financial aspects. There are many individuals and groups who automatically oppose the idea of a longer school year because they associate it with all year round plans which ignored the educational advantages.

At times, people raise questions about the programs outlines. Some of them can be answered forthrightly. Others cannot because some phases of the extended school year program are still in the process of evolution and because of the many variables that go into the educational process. However, in many instances, answers can be given on the basis of past history or practices which can be found in our schools today.

The vacation issue is one that cannot be ignored. Many parents who have not considered how the school can meet their vacation problem become very emotional about the subject. During the early exploratory months, the proponents of a longer school year talked and wrote about school calendars providing 220 to 225 days of schooling. Today, a compromise length calendar is recommended which meets the economy and educational objectives. Thus, a 204-210 day school calendar has been proposed because it eliminates most of the questions referring to:

- (1) The problem of the family vacation
- (2) The problem of summer school for teachers with unfinished degrees
- (3) The problem of the summer camp and/or the camper
- (4) The problem of summer building maintenance

Other Questions Which People Raise

- (1) How much are you going to pay teachers?
- (2) Will the early graduate be mature enough?
- (3) Will the early graduate be able to get a job?
- (4) How can a school system overcome the hurdles of the adjustment years?
 - (a) administratively
 - (b) financially
- (5) Can you guarantee that the longer school year will not work to the disadvantage of a teacher?
- (6) Can you guarantee that the longer school year will not work to the disadvantage of a boy or girl?
- (7) Will the dates of the fiscal year have to change if the new school calendar extends into July?
- (8) Will the State Aid formula remain the same?
- (9) What will happen to the money that is saved?
- (10) What impact will the new extended year proposals have upon the scheduling of Regents examinations?
- (11) Can children take a longer school year?
- (12) Can teachers take a longer school year?

It is possible to answer some questions such as the foregoing ones, but time will be necessary to answer others. Recommendations can be given regarding the payment of teacher salaries and the financing of the program, but the question of student maturity is difficult to answer because of the multiplicity of elements which must be considered when talking about maturity.

How Are Teachers Compensated for Working in a Longer School Year Program? (tentative)

Teachers who work in an Extended School Year Program are to receive extra compensation for their extra days of service. How much extra salary they receive may depend upon the nature of the program. At times, special adjustments will have to be made beyond recommendations where only a portion of a school staff is employed for an extra 20, 25, or 30 school days.

Recommendation No. 1 Salary Adjustments for the Continuous School Year

All teachers working in the Continuous School Year program should receive a 10 percent increase over their annual salary. This increase should be a minimum, even where attempts have been made to shorten the extension of the school year through a compression of the regular school year calendar.

Recommendation No. 2 Salary Adjustments for the Trimester and for Quadrimester Programs

Teachers working in trimester or quadrimester programs should receive a 10 percent increase in their annual salary, plus 1/200 of their yearly salary for each day extending into the 12th month.

Recommendation No. 3 Salary Adjustments for the Modified Summer School

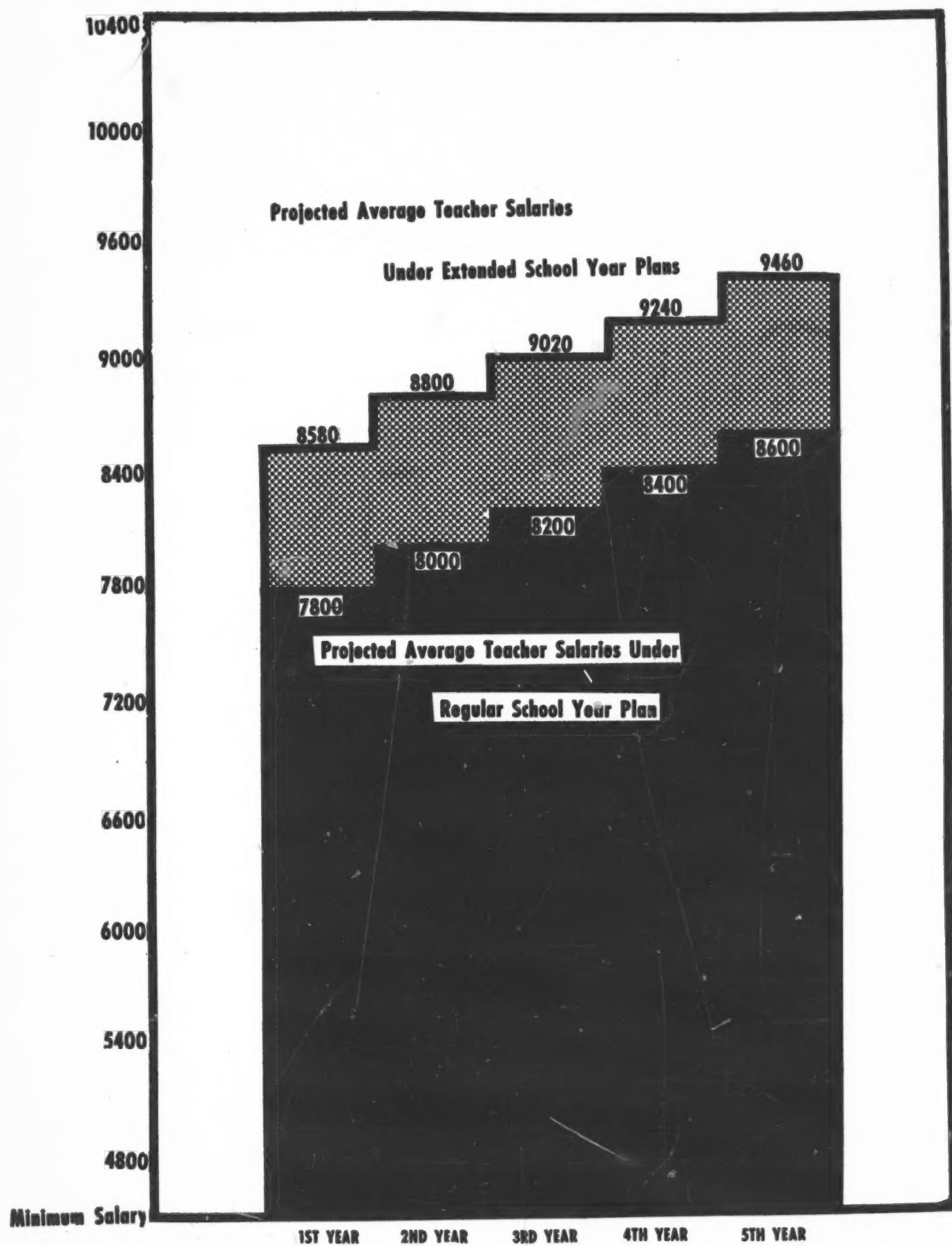
All teachers who work for a full morning or afternoon may be classified as full-time teachers. Teachers working less than a full morning may be compensated on a pro rata basis.

- a. Teachers employed on a voluntary basis may be given a salary based upon an hourly rate or a flat sum for the summer.
- b. Teachers employed on a voluntary basis in a nonremedial program may be paid on the same basis as (d).
- c. Where there is a parallel remedial makeup program in operation, the salaries of both groups of teachers should be equalized.
- d. Teachers who are required to teach in the modified summer program should be granted an increase of 10 percent of their annual salary for teaching during the month of July, plus 1/200 of their annual salary for each day extending into August.

If, however, the regular school year has been deliberately compressed to avoid extending the summer school into August, the teachers should be granted the extra 1/200 of their annual salary for each compressed day.

FIGURE 58

AVERAGE TEACHER SALARIES UNDER REGULAR AND EXTENDED SCHOOL YEAR PROGRAMS



Recommendation No. 4 Salary Adjustments for the K to 12 Extended School Year Program

Teachers working in the K to 12 Extended School Year program may receive a 10 percent increase in salary. However, the number of support teachers may create a slight deficit instead of a surplus in the current teacher salary expense budget. To make the program self-supporting, it may be desirable to start the program by granting lump sum increases of \$500 or \$600 (approximately 7 percent of average teacher salary) over and above scheduled annual raises. After the adjustment years, the program should be evaluated in terms of what has happened to the status quo, then the budget and salaries should be adjusted accordingly.

The introduction of a recommended lower, middle, and upper school may lead to added savings. In this case, all teachers should receive a 10 percent increase in salary for a 204-210 day school year.

Cost Calculations Must Include a Provision for Teacher Retirement Charges and Other Fringe Benefits

In addition to an extra 10 percent salary allowance, budget provisions must be made to include board of education contributions to the teachers retirement fund. All cost calculations made in this report to project adjustment year costs or post adjustment year savings included an allowance for retirement on the basis of 18.4 percent* of a teacher's salary. Thus:

The board of education employing a teacher at \$7,800 for the regular school year must make provisions for paying an extra \$143.52 teacher retirement charge on the \$780 additional compensation for extended school year service. This would result in a total outlay of \$10,435.90 for scheduled salary, retirement, and social security. By the same token each position absorbed due to the reduced enrollment will result in a saving of \$9,512.40 plus noncalculated savings in other fringe benefits such as insurance and sick leave, etc.

*The 18.4 figure is based upon a rate set by the New York State Teachers Retirement Association for 1965-66. It may be increased in the near future thus increasing projected costs or savings.

A Word of Warning

Some teachers and school administrators have argued that the new school calendar does not have to extend into July or August, because the same objectives can be obtained through the elimination of vacations in the winter or spring. They can illustrate their point by referring to school systems in other states which close at Memorial Day. It is possible to close the schools earlier, but vacations, as such, may be more important during the school year than the longer vacation in the summer. Teachers and pupils should be protected from those who would eliminate winter and spring vacations, for there are some people who see such action as a method of avoiding the payment of salary for 11 months of service.

The Challenge of the Extended School Year Program

Extended school year programs should not be treated lightly, because they can offer something of value to every school system. For example:

1. A school system which literally has everything can still benefit from extended school year programs which offer the advantage of more education to a large segment of the school population.
2. A school system which needs additional classrooms to meet an enrollment crisis, to reduce class size, to secure racial balance, or to eliminate the use of obsolete school facilities, can find rapid relief in the proposed extended school year programs.
3. A school system which is constantly having to search for new ways to obtain money will find some monetary relief in reorganization plans.
4. School systems which want to do something positive about the problems of the "disadvantaged," the semi-literate, and the potential dropout will find some relief to the problems in the longer school year.

Cost of Adjustment Years Is a Hurdle

Some school administrators and board members see educational advantages and future financial savings in extended school year programs, but they are not in a position to adopt a new organizational pattern because they lack money to get over the hurdle of first adjustment year costs. This is especially true of those cities which have reached the limit of their taxing power. Until they can see some hope of outside financial help, the concept of the extended school year will receive a limited reception.

Alternative Solutions to the Problem of First Year Adjustment Costs

Adjustment costs pose problems to school authorities and those responsible for raising school costs. The recommendation that "first instance money" be made available to support new programs cannot be ignored. However, the amount of money requested can be reduced somewhat through the following:

1. The adjustment year costs of a trimester program may be spread over two fiscal years

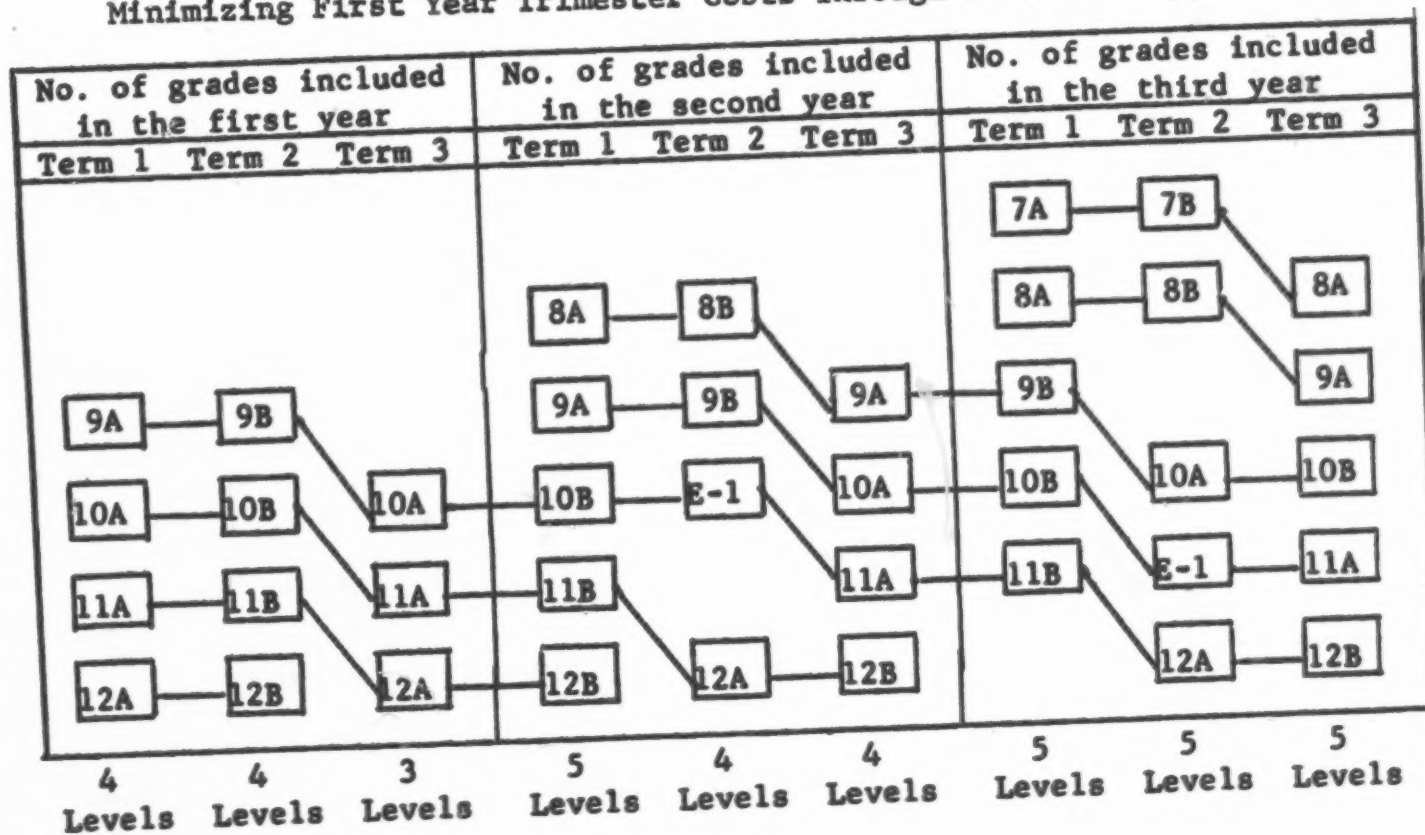
Financial economies which may be realized in the second year of a new trimester program can be used to offset extra first adjustment year expenses. Cost studies presented in the handbook were predicated on the assumption that the entire new extended school year salary costs would be included in one budget. If current fiscal year calendars are not changed, a portion of the expenses can be spread over two fiscal years.

2. Adjustment year costs can be minimized through the adoption of partial programs for the adjustment years

Projected cost studies of the gradual approach to continuous school year, trimester, and quadrimester programs have shown that a gradual approach will result in lower adjustment year costs. Whether these savings are worth the loss of educational advantages or the resulting complex administrative problems remains an issue to be resolved.

Figure 59

Minimizing First Year Trimester Costs Through a Gradual Approach



Another design showing the start of the new program with five grades can be easily developed. Such an approach would result in a reduction of the adjustment year costs for a six year program by approximately 20 percent instead of a projected 35 percent from the one pictured above.

In either case, the full six grades, 7 to 12, can be included in the new trimester program in the second year without raising school costs since savings resulting from a reduction in enrollments at the end of the fourth term will more than place the extended 7 to 12 program on a self-sustaining basis.

Figure 58 illustrates one approach to the minimization of the adjustment year costs. Other illustrations for other programs will bear out the possibilities of the more gradual approach to placing a school or school system on an extended year program.

3. The use of new teaching techniques including new media can result in savings over and above those described for the extended school year program

The question may be raised as to the nature of a teaching load where mass instructional techniques are used. Similarly, teaching loads for elementary and junior high school teachers may need to be balanced where teaching specialists are used or where team teaching practices are instituted.

Technology can be used to reduce school costs. Class size may be increased, or teachers may be released to work with small groups or individuals when teachers use mechanical aids to assist them. For example:

- A. An art teacher has worked successfully with 50 students when he had access to multiple teaching aids. The use of an overhead projector enabled him to project his handiwork or directions on two enlarged overhead screens.
- B. Four teachers were released to work with small groups by the employment of a typing teacher who had no difficulty teaching 100 to 125 pupils at a single sitting. She walked about the large room directing pupil activity with a portable microphone.
- C. Teachers were released from routine activities when prerecorded tapes and television programs, as well as microfilmed materials, were made accessible to individual students, small groups, or multiple classes.

In some schools, a motion picture will be shown repeatedly to different groups of students. With planning, many of these multiple showings can be eliminated. A single teacher or more teacher aides can be used to release teachers.

- D. Teacher aides can be assigned to operate motion picture projectors and to supervise learning activities which do not require the prerequisite of a Bachelor or Master's degree.

- E. Portable viewers can be set up in strategic places, such as the library or other designated places, for viewing repeat shows by pupils who were not free to observe a special viewing of an important motion picture or televised lecture-demonstration.
- 4. Nonprofessional staff members can be used to relieve teachers of nonteaching duties

Potential savings in school costs can be found in the use of non-professional staff members. They can relieve teachers of nonprofessional duties. For example: .

- A. The use of "Lay Readers" enabled highly trained teachers to devote their time and attention to pupils needing special help. Because they had special assistants, it was not necessary to cut back on the number of teaching classes.
- B. Teacher aides were used to help set up science laboratory activities. With the extra help the science teachers were free to work with pupils needing special help. In one school, large science classes were successful because teachers were relieved of routine responsibilities.
- C. Teacher aides released professional staff members by supervising students assigned to take teacher-made or standardized tests.
- D. High-salaried teachers use their teaching skill continuously because aides monitor cafeterias, school playgrounds, and study halls. Teacher aides have successfully shown their ability to assume these routine responsibilities, to the gratification and relief of numerous teachers.

Will the Younger Graduates Be Mature Enough?

The question of maturity will be raised, regardless of whether the extended school year program is being sponsored for secondary school or college level students. It is a question which is difficult to answer, because people will not agree on a definition of maturity, since the individual who is mature in one area may not be as mature in others.

The individual's readiness to face life's problems depend upon a combination of inherited factors and acquired experiences. One may have the potential for growth to higher maturity levels, but a lack of broad, rich experiences will limit the nature of his growth patterns. Many young people have to break with home and school ties if they are to rise above a growth plateau. Therefore, a delay in the independence process by requiring another chronological age of schooling will not perceptibly change their approach to new problems such as those encountered in marriage, college, the army, the world of work, or general everyday living.

Physical Maturity

Increments in physical size are relatively small after a person reaches 16 years of age, but today's 16-17-and 18-year-old youths are often more mature physically than their counterparts of a generation ago. (American men today are 4 to 14 pounds heavier and 2 inches taller than their fathers.) It is repeatedly illustrated in the new records established each year by athletes who exhibit new levels of strength, speed, and endurance. Physical maturity, as such, will not be perceptibly changed by deferring the completion of secondary school until the individual is chronologically 1 year older.

Academic Maturity

Modern high school students are successfully working with materials and concepts formerly introduced and taught at college levels. Young elementary school children have repeatedly demonstrated their ability to understand materials and principles formerly reserved for junior and senior high school pupils. In a sense, academic maturity levels are changing because boys and girls of today are maturing earlier than they did 30, 40, or 50 years ago.

Studies have shown that high school graduates who have had a good academic background will have no difficulty with college level course work if they undertake it at 17 instead of 18. If pupils encounter trouble in college, it is due to other factors than chronological age.

Few high school graduates of tomorrow can expect to sit back and say "My education is behind me." To do so will be to stagnate. If they intend to find success in life, they will have to forgo some freedom because of the pressures to have them acquire more knowledge and higher level skills. They will find, for example, that industry spends billions of dollars annually in school incentive and job training programs. Again, many of them will find job opportunities in many fields will be closed unless they go to a community college or vocational training school.

If people accept the fact that a high school education is no longer the end of the road, that education for many must continue, not because of extended school years but in spite of it, the saving of one chronological year in the present K to 12 program may become more meaningful and realistic.

Maturity and Years of Schooling

Maturity and years of schooling are not necessarily related. Parents and school board members are often shocked when they are shown the achievement range of pupils in a given class. There may be a range of five years in a fifth grade class and six years in a sixth grade class with a steady increase in the spread as pupils reach higher grades. The problem becomes complicated by the fact that achievement ranges overlap for pupils in different grades and subjects, to the point that classification in terms of the traditional graded structure becomes possible. Thus, academic maturity does not coincide with a given number of years of schooling in the case of all children.

There is a similar overlapping in the areas of social, emotional, physical, mental, and sexual maturity. The range of maturity in each area continues to spread until the word "mature" defies definition when applied to 16-, 17-, 18- and 19-year-olds. At this stage, some young people will stand out as either mature or immature individuals but the majority will be beyond classification in terms of total maturity. With all the variations in their growth patterns, it will be virtually impossible to assume that students will attain final or complete maturity by attending high school for one additional year.

If time spent in school is the maturation factor, the extended school year graduate should be more mature because he will have been exposed to 2,520 nonweighted extra days of instruction in 12 extended school years, compared to 2,340 in 13 regular school years.

Time in school, not number of years in school, may be considered a part of the maturation process, but time in itself may be less important than the nature and quality of the individual's school experiences. Many young people reach a maturity plateau which they cannot leave until they can acquire new educational experiences. Remaining another year in their old high school will not be as stimulating as going on to institutions of higher learning, such as a vocational school, a community college, or a liberal arts college.

Will Colleges Admit Younger Age High School Graduates?

Questionnaires were sent to 205 New York State and out-of-State college authorities to determine what would happen if extended year programs were to send them (a) a large number of applicants or (b) a small number of applicants who would be 17 years and 3 months old chronologically, instead of the traditional 18-3. Figures 60 and 61 indicate the nature of the responses received from 86 New York State colleges and 56 representative out-of-State colleges.

The survey clearly indicates that chronological age is no obstacle to admission to college when applicants meet normal college entrance standards. When asked if the same consideration would be given to 17-year-olds as to 18-year-olds, the answers were in the affirmative:

- (a) 99.1 percent of the responses indicate that 17-year-old boys will have equal or better chances of being accepted.
- (b) 97.8 percent of the responses indicate that 17-year-old girls will have equal or better chances of being accepted.

Figure 60

The 17-Year-Old Boy's Chance of Being Accepted in College Compared to That of 18-Year-Olds

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Percent of college authorities indicating their position regarding the entry of 17-year-old boys in large or small numbers

Chance of being admitted	No. of 17-year-olds seeking admission	% of New York State responses	% of Out-of-State responses
Higher	Large number	5.6%	0.9%
	Small number	5.6	1.9
About Equal	Large number	87.5	98.2
	Small number	86.1	98.1
Lower	Large number	6.9	1.8
	Small number	8.3	00.0

While few students would save two years of schooling under present recommendations, it is still conceivable that a small number of 16-year-olds could apply for admission, as they do now, due to differences in elementary school entry ages and/or promotional policies. This led to a question regarding the acceptability of 16-year-olds. A summary of responses follows:

- (a) Seventy-four percent of the colleges indicated that 16-year-old boys would have equal or better chances if small numbers applied for admission.
- (b) Sixty-four percent indicated that 16-year-old boys would have equal or better chances if large numbers applied for admission.
- (c) Seventy percent indicated that 16-year-old girls would have equal or better chances if small numbers applied for admission.

A survey of the literature in the subject of early college entrants showed a consistency in regards to the following points:

- 1. The social adjustment of younger, gifted college entrants compares favorably with that of older, average college students.
- 2. The scholastic performance of younger, gifted students not only equals but is often superior to that of students who enter college at the average age of 18-3.
- 3. Mental age, and not chronological age, is the selecting factor when it comes to qualifying for college admission.

Figure 61

The 17-Year-Old Girl's Chance of Being Accepted in College Compared to That of 18-Year-Olds

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Percent of college authorities indicating their position regarding the entry of 17-year-old girls in large or small numbers

Chance of being admitted	No. of 17-year-olds seeking admission	% of New York State responses	% of out-of-State responses
Higher	Large number	2.6%	00.0%
	Small number	3.9	2.2
About Equal	Large number	90.8	97.8
	Small number	89.5	97.8
Lower	Large number	6.6	2.2
	Small number	6.6	00.0

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Can High School Students Enter College During the Year if High School Flow Patterns Make Them Eligible for Admission before June?

Due to attrition, many colleges are in a good position to accept applicants at the beginning of each term after the first freshman entry. So far, the problem college authorities have had to face is a reluctance on the part of high school principals to provide more than one output where colleges have multiple inputs. Most early graduates would find colleges want them whenever they can meet college entrance requirements.

Extended School Year Programs and Job Opportunities

People who worry about the possible impact of the Extended School Year Program in the labor market tend to forget that:

1. All high school graduates will not be 18 or less when they enter the labor market. Some students are still going to take at least six years to complete secondary school programs.
2. A major portion of the labor problem today can be traced back, not to high school graduates, but to dropouts.
 - (a) Two-thirds of the unemployed men and women in the United States have an inadequate education. They lack a diploma.
 - (b) Less than 2 percent of the dropouts can expect to find jobs in professional, technical, managerial, clerical, or sales occupations.

3. There is a surplus of nonskilled workers, but there is a grave shortage of personnel for jobs requiring further education and/or specialized training, such as, typists, secretaries, mechanics, cooks, salesmen, technicians, nurses, teachers, librarians, etc.
4. Early graduation from high school does not mean an end to education.

The extended year program is no panacea, but it can help by preparing more young people for life.

1. For the potential dropout, it can mean a higher step on the educational ladder. For many, it will result in receipt of a diploma.
2. All pupils can obtain, with good guidance, more education plus a more varied type of education.
3. For many people, the extra year that is saved can become the breather they need before making crucial decisions regarding job and marriage choices. It can lead to post high school vocational training programs or to graduate school possibilities after college.

What Happens to the Regents Examinations?

If the end of a term or course does not coincide with the dates set aside for the administration of Regents Examinations, a school system has two alternatives, namely:

1. A number (three or four) of secure examinations have been prepared by the State Education Department staff. They can be administered at any time of the year. If the demand for special test dates increases, the number of secure examinations will increase.
2. If secure examinations are not available, the local school system may submit teacher-made examinations to the State Education Department for approval. Pupils who pass these approved examinations will receive Regents credit.

What Happens to the Curriculum?

Although an extended school year can be introduced with little revision of the present curriculum, recommendations are generally made which will require changes. Since time equalization is the first problem of a teaching staff, the courses of study should be broken into new time blocks. In the Continuous Progress Plan, this is the major change in the curriculum of the elementary school. However, the secondary school staff must be ready to accept (1) a younger student, plus (2) a student who may be ready for higher levels of instruction. This will be true of Extended

K to 12 Program students who will have had time to acquire greater depth and background because of the extra instructional time provided at the primary and intermediate grade levels.

The "E" terms allow students to devote more time to given subjects, to take new courses, and to work at advanced levels. If the programs are to be successful, the curriculum cannot be static. It must be flexible, and expanding, and must be adaptable to new teaching techniques as well as modification of time.

What happens to the curriculum will depend upon the philosophy of education espoused by the educational leaders in a designated community. There is no question about the fact that pupils can obtain more educational experiences under some extended school year programs. However, the nature and value of these extra experiences will depend upon a school's readiness to help pupils pursue programs of study which will help them resolve problems of living in the complex world of the 1960's and 1970's.

Summary

Extended school year designs presented in this handbook point up directions that can be taken by those who are interested in providing boys and girls with more education while taking positive steps to reduce the cost of education. New school organizational patterns can be developed in terms of the ideas presented in the handbook, but in many instances the local community will have to adapt the design to local needs. In some communities there will be no need for a Middle School. In others, the Middle School can be modified to provide space at either the elementary or secondary school levels. Again, calendar variations may be adapted to meet the varying vacation or work patterns of a given section of the state or country.

On the surface the new school reorganization may appear simple, "One merely adopts a new and longer school calendar." Actually this will not suffice because the important thing will be what pupils and teachers do with time. This will be reflected in curriculum changes which should be followed by teacher and pupil adjustment as they work within the boundaries of new educational time lines.

This handbook has presented a number of new concepts. In many instances a reader will still have trouble understanding them after the first exposure, but with re-reading and some thought it will be apparent that educational as well as financial advantages lie in the offing for those who try to build upon the framework of the new educational designs that have been presented.

In summary, consideration may be given to the following significant points:

1. Extended school year designs can lead to economies due to a reduction in total school enrollments.

- (a) The need to house and educate fewer students releases classrooms and teachers and thereby makes possible a potential saving of millions of dollars in state and local tax revenues.
- 2. Expensive school plants and specialized equipment are not kept idle while there is a crying need for more and/or continued education.
 - (a) A rescheduling of the school day and year makes it possible to utilize classrooms and special facilities more effectively and for a longer portion of a calendar year.
- 3. Lengthened school year programs can give a community a much broader use of professionally trained teachers.
 - (a) Talents are used which are generally diverted to non-educational activities for a large portion of a calendar year.
- 4. The saving of one chronological year of schooling is predicted on the conclusion that education is not going to terminate for 70 to 80 percent of tomorrow's graduates. Post-high school vocational training or advanced study in a junior college or colleges plus additional work for some at the graduate level must be considered as prerequisites for social and economic self-sufficiency and satisfaction. Those pupils who complete the present 13 year program in 12 years will be able to use the time saved at new and higher learning institutions.
- 5. Boys and girls can obtain the equivalent of two extra years of instruction while completing established 13 year programs of study in 12 lengthened school years.
- 6. Many boys and girls who would normally fall into the dropout category will find it possible to enter the world of adults possessing an earned high school diploma.
- 7. Recommended school organizational plans carry with them the prospect of a major retooling of the curriculum along with a modification of teaching practices and materials.
- 8. Increased educational opportunities are provided in a number of designs through the inclusion of extra time blocks designated as "E" terms.
- 9. Extra instructional time can be provided to meet the basic needs of every child, not just the gifted or "academically retarded", without imposing new tax burdens at either the state or local level.

10. Instruction provided in the extra days of schooling becomes an integral part of regular programs of education.
11. The gap between teacher supply and demand can be narrowed, thereby reducing the need to employ noncertified teachers.
12. Teacher salaries will be increased, thus placing teachers in a better competitive position with those employed in other fields of professional and non-professional work.

Appendix

PROJECTED SAVINGS IN CLASSROOMS FOR THE STATE OF NEW YORK BASED ON THE ADOPTION OF AN EXTENDED SCHOOL YEAR PROGRAM

I. Projected School Enrollments for Grades 7-12 Based Upon Adjustments Due to Past Attrition Patterns

A. Projected Adjusted School Enrollments Under the Regular Two-Semester Plan of School Organization

Grade	'65-66	'66-67	'67-68	'68-69	'69-70	'70-71
7	232,989	241,663	248,669	254,245	264,530	266,244
8	223,370	223,780	232,140	238,934	244,250	254,278
9	246,215	252,455	252,689	262,080	269,647	275,714
10	237,067	245,850	251,835	251,932	261,267	268,748
11	214,434	217,219	225,724	231,891	232,579	241,728
12	182,082	194,523	198,042	206,762	213,674	215,414
TOTAL	1,336,157	1,375,490	1,409,099	1,445,844	1,485,997	1,522,126

B. Comparative Adjusted School Enrollments for Grades 7-12 Under The Regular Two-Semester Plan and A New Proposed Extended School Year Plan of School Organization

Year	Projected Enrollments for Regular School Year	Classrooms Used In Regular Year*	Projected Enrollments for Extended School Year	Classrooms Extended School Year*	Number of Classrooms Saved In Year
'65-66	1,336,157	50,612	1,336,157 to 1,154,075	50,612 to 43,715	0 to 6,907
'66-67	1,375,490	52,102	1,180,967	44,734	7,368
'67-68	1,409,099	53,375	1,211,057	45,873	7,502
'68-69	1,445,844	54,767	1,239,082	46,935	7,832
'69-70	1,485,997	56,288	1,272,273	48,192	8,096
'70-71	1,522,126	57,656	1,306,712	49,497	8,159

*The number of classrooms is based upon a calculated ratio of 26.4 pupils per classrooms.

**POTENTIAL ECONOMIC ADVANTAGES OF AN EXTENDED SCHOOL YEAR
FOR NEW YORK STATE IN THE FIRST YEAR**

A Plan to Save One Year Out of Six

Estimated Allowance for Teacher Salaries for 1965 to 1966	Regular School Year 10 Months	Extended School Year 7 Months	Extended School Year 10 Months
A. Assumptions			
1. Ratio of classroom teachers to pupils	<u>1 to 19.4</u>	<u>1 to 19.4</u>	<u>1 to 19.4</u>
2. Average teacher salary	<u>\$ 7,700</u>	<u>\$ 5,390</u>	<u>\$ 7,700</u>
3. Anticipated enrollment September to June	<u>1,336,157</u>	<u>182,082</u>	<u>1,154,075</u>
4. Number of regular classroom teachers	<u>68,874</u>	<u>9,386</u>	<u>59,488</u>
B. Allowance for Salries for First Ten Months			
1. Allocation for teachers salaries	<u>\$530,329,800</u>	<u>\$ 50,590,540</u>	<u>\$458,057,600</u>
2. Allocation for pensions--Board's share (18.4%)	<u>97,580,683</u>	<u>9,308,659</u>	<u>84,282,598</u>
3. Allocation for Social Security--Board's share (\$277.20) prorated \$226.38 for 7 months	<u>19,091,873</u>	<u>2,124,802</u>	<u>16,490,073</u>
4. Total allocation for teachers salaries for first ten months of the program	<u>\$647,002,356</u>	<u>\$ 62,024,001</u>	<u>\$558,830,271</u>
C. Allowance for Teachers Salaries for Extra Month			
1. Allocation for extra month's service at rate of 10% over and above regular salary			<u>\$ 45,805,760</u>
2. Allocation for pension--Board's share			<u>8,428,259</u>
3. Total cost of extra month's service			<u>\$ 54,340,019</u>
D. Total Salary Allocation for Extended Year			
1. Allocation for 7 months	<u>\$ 62,024,001</u>		
2. Allocation for 10 months	<u>558,830,271</u>		
3. Allocation for extra month	<u>54,340,019</u>		
4. Total allocation for Extended School Year	<u>\$675,088,291</u>		
Comparative Cost of Regular School Year & Extended Year			
1. Salary allocation for regular school year	<u>\$647,002,356</u>		
2. Salary allocation for extended school year	<u>675,088,291</u>		
3. Difference	<u>-\$ 28,085,935</u>		

**POTENTIAL ECONOMIC ADVANTAGES OF AN EXTENDED SCHOOL YEAR
FOR NEW YORK STATE IN THE SECOND YEAR**

A Plan to Save One Year Out of Six

Estimated Allowance for Teacher Salaries for 1966 to 1967	Regular School Year 10 Months	Extended School Year 4 Months	Extended School Year 10 Months
A. <u>Assumptions</u>			
1. Ratio of classroom teachers to pupils	<u>1 to 19.4</u>	<u>1 to 19.4</u>	<u>1 to 19.4</u>
2. Average teacher salary	<u>\$ 7,900</u>	<u>\$ 3,166</u>	<u>\$ 7,900</u>
3. Anticipated enrollment September to June	<u>1,375,490</u>	<u>194,523</u>	<u>1,180,967</u>
4. Number of regular classroom teachers	<u>70,902</u>	<u>10,027</u>	<u>60,875</u>
B. <u>Allowance for Salaries for First Ten Months</u>			
1. Allocation for teachers salaries	<u>\$560,125,800</u>	<u>\$ 31,685,320</u>	<u>\$480,912,500</u>
2. Allocation for pensions--Board's share (18.4%)	<u>103,063,147</u>	<u>5,830,098</u>	<u>88,487,900</u>
3. Allocation for Social Security--Board's share (\$277.20) prorated to \$132.72 for 4 months	<u>19,654,034</u>	<u>1,330,783</u>	<u>16,874,550</u>
4. Total allocation for teacher salaries for first ten months of the program	<u>\$682,842,981</u>	<u>\$ 38,846,201</u>	<u>\$586,274,950</u>
C. <u>Allowance for Teachers Salaries for Extra Month</u>			
1. Allocation for extra month's service at rate of 10% over and above regular salary			<u>\$ 48,091,250</u>
2. Allocation for pension--Board's share			<u>8,848,745</u>
3. Total cost of extra month's service			<u>\$ 56,939,995</u>
D. <u>Total Salary Allocation for Extended Year</u>			
1. Allocation for 4 months	<u>\$ 38,846,201</u>		
2. Allocation for 10 months	<u>586,274,950</u>		
3. Allocation for extra month	<u>56,939,995</u>		
4. Total allocation for Extended School Year	<u>\$682,061,146</u>		
E. <u>Comparative Cost of Regular School Year & Extended Year</u>			
1. Salary allocation for regular school year	<u>\$682,842,981</u>		
2. Salary allocation for extended school year	<u>682,061,146</u>		
3. Difference	<u>\$ 781,835</u>		

**POTENTIAL ECONOMIC ADVANTAGES OF AN EXTENDED SCHOOL YEAR
FOR NEW YORK STATE IN THE THIRD YEAR**

A Plan to Save One Year Out of Six

Estimated Allowance for Teacher Salaries for 1967 to 1968	Regular School Year 10 Months	Extended School Year 10 Months
A. <u>Assumptions</u>		
1. Ratio of classroom teachers to pupils	<u>1 to 19.4</u>	<u>1 to 19.4</u>
2. Average teacher salary	<u>\$ 8,100</u>	<u>\$ 8,100</u>
3. Anticipated enrollment September to June	<u>928,290</u>	<u>730,248</u>
4. Number of regular classroom teachers	<u>47,850</u>	<u>37,642</u>
B. <u>Allowance for Salaries for First Ten Months</u>		
1. Allocation for teachers salaries	<u>\$387,585,000</u>	<u>\$304,900,200</u>
2. Allocation for pensions--Boards share (18.4%)	<u>71,315,640</u>	<u>56,101,637</u>
3. Allocation for Social Security--Board's share (\$277.20)	<u>13,264,020</u>	<u>8,552,262</u>
4. Total allocation for teacher salaries for first ten months of the program	<u>\$472,164,660</u>	<u>\$369,554,099</u>
C. <u>Allowance for Teachers Salaries for Extra Month</u>		
1. Allocation for extra month's service at rate of 10% over and above regular salary		<u>\$ 30,490,020</u>
2. Allocation for pension--Board's share		<u>5,610,164</u>
3. Total cost of extra month's service		<u>\$ 36,100,184</u>
D. <u>Total Salary Allocation for Extended Year</u>		
1. Allocation for 10 months	<u>\$369,554,099</u>	
2. Allocation for extra month	<u>36,100,184</u>	
3. Total allocation for Extended School Year	<u>\$405,654,283</u>	
E. <u>Comparative Cost of Regular School Year & Extended Year</u>		
1. Salary allocation for regular school year	<u>\$472,164,660</u>	
2. Salary allocation for extended school year	<u>405,654,283</u>	
3. Difference	<u>\$ 66,510,377</u>	

THE FLOW OF STUDENTS THROUGH A TRIMESTER PROGRAM IN THE SCHOOLS OF NEW YORK STATE

